The Journal of the American Medical Association

Published Under the Auspices of the Board of Trustees

VOL. LX, NO. 25 CHICAGO, ILLINOIS JUNE 21, 1913

THE TREATMENT OF NARCOTIC ADDICTION

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My article of four years ago[1] in THE JOURNAL describing a treatment for alcohol, morphin and other drug habits has caused a persistent demand on THE JOURNAL and on me for information concerning this subject. Since that time I have had a broad experience in the use of this treatment and a much wider experience with patients addicted to various drug habits. To serve a useful purpose, and at the request of THE JOURNAL, I shall explain further what seems essential in the use of this treatment, what seems non-essential, and in what varying way the treatment may be modified to meet the individual differences found in the patients.

A further experience with the patients has brought out the striking fact that nearly 80 per cent. of those addicted to the use of morphin and opium have acquired their habit through legitimate prescribing by their physicians or by self-medication. This has been due to a lack of realization on the part of physicians that it is by small doses, often repeated over a certain length of time, and not by any definite amount taken for the purpose of acquiring the habit as a luxury or as a vicious self-indulgence, that patients drift into the morphin habit. The patients themselves have failed to realize that if they took morphin even in small doses over a certain length of time, the habit would be fastened on them before they knew it. As the majority of patients have drifted into this habit unwittingly through means furnished by the medical profession, it seems justifiable that we should do all possible to popularize among the profession a method of treatment which with a minimum of suffering can relieve these patients of their unfortunate habit. In the majority of cases when once the morphin habit is acquired, the drug ceases to give pleasure. Often the pain for which it was taken has long ceased to exist; it is continued because of the intensity of the suffering when it is withdrawn. In spite of all statements and beliefs to the contrary, patients cannot break away from this drug of their own volition unless some treatment is at hand to relieve the intensity of the withdrawal symptoms, because of the intense suffering which these symptoms bring.

Several physicians in various parts of the United States are to-day using this treatment with success. Others report that they have failed in it, and from the many questions asked it is evident that often the failures have been due to the fact that physicians, reading the details of the treatment, have concluded that they could modify it at will and could succeed, no matter how much of the plan as published was altered or even omitted. When any treatment is a failure with the morphin patient it means intense suffering for that patient, and he should not be condemned if, in the intensity of his unrelieved suffering, he is able to obtain by some method a soothing drug which will relieve his agony. Great nicety of judgment has to be used in deciding between how much the patient is really suffering and how desirous he is of obtaining some alleviation of the fear that he may suffer. The real suffering should and can always be relieved, and the fear of what may come can always be alleviated.

This treatment is one of many details which have to be mastered before it can be successfully carried out. It is a mistaken kindness to alleviate the dread a patient has of taking the treatment by promising that he shall take it in his own home. The alcoholic will do as he chooses, not as the physician desires he shall do, if he is in his own home. The morphinist has hidden in various places supplies of morphin which he can obtain in spite of the strictest vigilance. If these patients are taken to a hospital the treatment can be given by those accustomed to administer it, where the medical attention can be more constant, where the patients will unconsciously exert more self-control than in their own environment, and where the supply of the narcotic can be controlled. The essentials of the treatment, which cannot be altered, are the persistent administration of the belladonna mixture in small doses and the thorough elimination by means of some form of mercury as a cathartic. This practically means some form of blue mass or calomel, either given in some form of compound cathartic pill or alone. Some patients who cannot take calomel without being salivated can take blue mass. The cholagogue action is essential. The mere clearing out of the intestinal tract is not sufficient in the process of elimination. Enemas given to clear out the colon do not produce the same results as cathartics. There must be the cholagogue action from above. Often calomel in divided doses can be advantageously substituted for the compound cathartic pills, especially if the patients are nauseated. Often if the stools about the fortieth hour become clay-colored, some form of ox-gall preparations is useful.

To save reference to the first article the constituents and amounts of the mixture are repeated here:

		Gm. or c.c.	
℞	Tincturae belladonnae.....	62	℥ij
	Fluidextracti xanthoxyli..		
	Fluidextracti hyoscyami..aa	31	℥j

In making the mixture of belladonna, hyoscyamus and xanthoxylum, a 15 per cent. tincture of the belladonna must be used or an equivalent amount adminis-

1. Lambert, Alexander: The Obliteration of the Craving for Narcotics, THE JOURNAL A. M. A., Sept. 25, 1909, p. 985.

tered if a weaker tincture of belladonna is used. If this is not done the craving for the drug often remains as a nagging longing, and the obliteration of the craving is incomplete. It is also my personal experience that unless the mixture is pushed to the beginning physiologic tolerance of the belladonna, as shown by dry throat, dilated pupils or even a flushing and a rash, or the beginning incisive voice of the commencing belladonna hallucinations, though the last-named is to be avoided if possible, the desired results are not obtained. The converse is true that the desired results are obtained even if only one, two or three drops of this belladonna mixture can be tolerated by the patient every hour. It is further essential that this belladonna mixture should be given persistently in small doses and not by the teaspoonful three times a day, as has been frequently reported to me.

It is absolutely essential that the morphin patient before starting in the treatment should have a thorough cathartic action before the belladonna treatment is begun. At this time an enema is not sufficient, and unless such cathartic action has been obtained patients are very sure later to be troubled with persistent vomiting. Further, though not essential, it is wiser to give three-fourths of the total twenty-four-hour dose instead of two-thirds as the initial dose of morphin. The patients thus go through their first two periods without any distress, and they do not begin to have the symptoms of discomfort until the third dose of morphin begins to wear off. If but little morphin is given in the beginning dose, and one halves it at the second dose and halves it again at the third dose, owing to the insufficiency in the beginning the patient is not really comfortable at any time, and has a nagging desire for more.

Patients will often try to hide how much they are really taking. Any patient taking over 30 grains of morphin seems to be able to tolerate almost any amount. To one patient taking over 60 grains a day by hypodermic I gave 45 grains hypodermically as the initial dose, to begin the treatment, and he was only comfortably drowsy from it. In the case of another patient who declared he was taking only 6 grains a day I found that in order to make him comfortable I was forced to give him 47 grains hypodermically in two hours. This patient was not even drowsy, but then began his treatment and went through with success. The method in detail is as follows:

AUTHOR'S METHOD OF TREATMENT

A patient addicted to morphin is given five compound cathartic pills and 5 grains of blue mass, and six hours later, if these have not acted, they are followed by a saline; after three or four abundant movements of the bowels from these cathartics the patient is given, in his habitual way, by mouth or by hypodermic, in three divided doses at half-hour intervals, two-thirds or three-fourths of the total daily twenty-four-hour dose of morphin or opium to which he has been accustomed. The physician should observe carefully after the second dose has been given, as the amount then equals either four-ninths or one-half the total twenty-four-hour dose. A few patients cannot comfortably take more than this amount. Six drops of the belladonna mixture are given in capsules at the same time as the morphin. This belladonna mixture in doses of 6 drops (and by drops I do not mean minims: I mean drops dropped from an ordinary medicine-dropper, which is about half a minim dose) is given every hour for six hours. At the end of six hours the dosage is increased 2 drops. The belladonna mixture is continued every hour of the day and every hour of the night continuously throughout the treatment, increasing 2 drops every six hours until 16 drops are taken, when it is continued at this dosage; it is diminished or discontinued at any time if the patient shows belladonna symptoms such as dilated pupils, dry throat or redness of the skin, or the peculiar and incisive and insistent voice, and insistence on one or two ideas. It is begun again at reduced dosage after these symptoms have subsided. If the patient has an unusual sensitiveness to belladonna it will usually show itself in the first six or eight hours and the hourly dosage can be cut down to from 2 to 4 drops and raised by one drop every six hours. If, on the other hand, even 16 drops persisted in for twelve consecutive hours do not give dryness of the throat the dosage should be raised to 18 or 20 every hour until the dryness occurs and then the amount reduced.

At the tenth hour after the initial dose of morphin is given the patient is again given five compound cathartic pills and 5 grains of blue mass. These should act in six or eight hours after they have been taken. If they do not act at this time, some vigorous saline is given, and when they have acted thoroughly the second dose of morphin is given, which is usually about the eighteenth hour. This should be one-half the original dose, that is, one-third or three-eighths of the original twenty-four-hour daily dose. The belladonna mixture is still continued, and ten hours after the second dose of morphin has been given, that is, about the twenty-eighth hour, five compound cathartic pills are again given and 5 grains of blue mass, these again, if necessary, followed by a saline seven or eight hours later. After these have thoroughly acted at about the thirty-sixth hour, the third dose of morphin is given, which is one-sixth or three-sixteenths of the original dose. This is usually the last dose of morphin that is necessary. Again, ten hours after the third dose of morphin, that is, the forty-sixth hour, the five compound cathartic pills and 5 grains of blue mass are again given, followed seven or eight hours afterward by a saline, and one expects at this time to see the bilious green stool appear. When this appears, after the bowels have moved thoroughly, about eighteen hours after the third dose of morphin, about the fifty-sixth hour of treatment, 2 ounces of castor oil are given to clear out thoroughly the intestinal tract. Sometimes it is necessary to continue the belladonna mixture over one or two more cathartic periods before giving the oil. During this last period when the bowels are moving from the compound cathartic pills and before the oil is given, the patients have their most uncomfortable time. Their nervousness and discomfort can be controlled usually by codein, which can be given hypodermically in 5-grain doses and repeated if necessary; or some form of the valerianates may help them. About the thirtieth hour of treatment these patients should be stimulated with strychnin or digitalis, or both, every four to six hours.

Some patients cannot tolerate codein and break out into an urticarial rash or a fine red punctate rash or swelling and burning of the skin. In these patients relief can be obtained by dionin, which seems about twice as strong as codein in its power to relieve nervousness and the feeling of distress. It should be given, therefore, in doses of about 2 or 3 grains or less. Codein or dionin should be cut off as soon as possible after the castor oil has acted. It may be given during the next succeeding twenty-four hours if necessary, but if patients are for any reason taking codein for forty-eight hours

after they are through their treatment, they will usually persist in doing so and must be broken from this narcotic or they will from this return quickly to their morphin or heroin.

The withdrawal pains or pain in the joints and aching in the bones and muscles can sometimes be relieved by hypodermics of some form of ergot and strychnin, sometimes by massage, sometimes by sodium salicylate, sometimes by a salicylic compound combined with some of the coal-tar products such as antipyrin, phenacetin or pyramidon; they can always be eased up by codein or dionin. The addition of codein to these coal-tar products increases their analgesic effect. These patients have been in the habit of referring all their discomfort and distress to the lack of morphin and have consequently drifted into the habit of referring everything to the lack of it. For two or three days after they are off their drug any indiscretion in eating, or any attempt at too much physical exertion, will bring a recurrence of their withdrawal symptoms. This is simply due to exhaustion or to indigestion, and if treated as such quickly disappears without any narcotic. Insomnia is often a troublesome symptom after the patients are off their drug. This may have to be treated in some patients with doses of bromids, in others by chloral or by other various hypnotics. Veronal has, in my hands, given so much depression and produced so many bad after-effects that it should be avoided. The best hypnotic is muscular fatigue, and these patients should begin to exercise regularly and be built up physically as soon as their condition permits. Usually this is within a week after they are off their drug.

Patients who have been taking both morphin and alcohol should be treated for the morphin and can be tapered off at the same time from their alcohol. They are apt to have an active gastritis, which complicates their ability to retain their medication or to retain food. Sodium citrat in doses of from 5 to 10 grains every hour best relieves this condition, with or without from 10 to 20 grains of cerium oxalate or 5 grains of Tully's powder every two hours for one or two doses.

Cocain and morphin are not infrequently found as a simultaneous indulgence. This is the most difficult combination to treat. Formerly, in my early experience, I considered it not difficult, but later experience has made me realize that cocainism adds to the difficulty of treating a morphin patient. Usually as the effect of the morphin wears off these patients become delirious, unreasonable, unmanageable and exceedingly ugly. They do not know or realize what they are saying or doing and they make trying patients. Often on the morning following their delirium they will have no recollection of what they have said or done or of any of the suffering which they asserted they were enduring, and will declare that they had a very good night.

In treating an alcoholic the belladonna mixture and the five compound cathartic pills and 5 grains of blue mass are given simultaneously at the first dose. The belladonna mixture is continued every hour of the day and every hour of the night the same as with the morphin patients, and twelve hours after the initial dose patients are again given from three to five compound cathartic pills, and at the twenty-fourth hour after the initial dose they are again given the cathartics followed by salines if necessary, and again at the thirty-sixth hour. After these last cathartics, the bilious stools will appear, and by the forty-fourth or forty-fifth hour the castor oil is given. Sometimes it is necessary to carry on the treatment over another period, and the compound cathartic pills and blue mass are again given at the forty-eighth hour, which would bring the end of the treatment about the sixtieth hour. It may even be necessary to carry on the treatment one or two periods longer.

Elderly or very nervous patients who have been on a prolonged debauch are tapered off with 2 ounces of whisky for four or five doses through the first twenty-four hours. If these patients are excessively nervous it is necessary also to see that they sleep, and the mixture of chloral hydrate, 20 grains, morphin ⅛ grain, tincture of hyoscyamus, ½ dram, tincture of ginger, 10 minims, tincture of capsicum, 5 minims, and water, ½ ounce, which was recommended before, is the best hypnotic for them. These patients should also have cardiac stimulants such as strychnin and digitalis after the first twenty-four hours, or sooner if they are weak.

The cocainist can be treated like the alcoholic, except that no cocain is given at any time, and strychnin or some such stimulant must be given from the beginning of the treatment.

To break a man from his tobacco habit alone he should be allowed to taper off the first twenty-four hours or he can be cut off abruptly and should be treated like the alcoholic.

RESULTS

I am often asked as to the success of this treatment and the percentage of patients who remain free from their addiction. This varies enormously with the individual patients and one can only judge from one's experience. My personal experience is that 11 per cent. of the morphinists and 12 per cent. of the alcoholics return for treatment. Doubling this percentage it still gives us 75 per cent. as remaining free from addiction. Of these a very high percentage are known to have stayed free.

SCOPE OF THE TREATMENT

This treatment is not offered as a cure of morphinism or as a cure of delirium tremens or chronic alcoholism, as I said in the first article. It will, however, obliterate the terrible craving that these patients suffer when, unaided, they endeavor to get off their drugs or are made to go through the slow withdrawal without some medication to ease them. Compared with the old methods of either slow withdrawal or rapid withdrawal, it is infinitely superior. Deprivation of a drug is in no way equivalent to elimination of that drug from the body. Deprivation causes suffering; elimination relieves it. But neither this combination of drugs nor any other combination known to man can prevent persons, after they are free from their addiction—be it alcohol or morphin—from going out and repoisoning themselves by taking again the drug which has poisoned them and led them on to their habitual intoxication.

Again, as said in the first article, so long as a man lives and just so sure as that man lives, he can never again take a dose of alcohol for any reason whatsoever or in any form whatsoever without the danger of going again to excess. After the patients have been freed from their drug and from the desire for it, they are by no means cured of their former habits of life and environment, and, more especially, of their former habits of thought. Many of these patients are psychasthenics, and the problem of their regeneration is one of psychology to be reached only by psychanalysis and patient rebuilding of their distorted views of life. The quickest method to bring them back to health is to send these patients to some physical trainer in order that their bodies may be put in as perfect condition as their years

and the state of their viscera permit. To mollycoddle them and treat them as neurasthenic invalids means simply to increase the liability of their relapse; but to build them up bodily will do more to build them up mentally for the first three to six weeks than any other method of procedure. If, at the same time, it is possible to treat them psychologically, one will often be well toward the solution of the problem by the time that these patients have regained the full vigor of their physical health.

Many patients who come under the class of periodic inebriates and whose periodicity seems to occur with no known cause or reason are sufferers from chronic tobacco poisoning which, in reality, is the cause of their periodic alcohol inebriety. This is especially true of the excessive cigarette smokers and the many others who inhale their cigar or pipe smoke. These patients smoke to excess, and becoming nervous, increase their smoking that their nerves may be quieted. Finally they become so nervous through their tobacco that they must take some narcotic to quiet them and turn to alcohol. They are exceedingly intolerant to alcohol and after the first drink or so they are mentally not sober and then go on to the full spree. The vicious circle can be broken only by cutting off their tobacco, and unless the tobacco is cut off they will stop neither alcohol nor tobacco. They cannot stop their alcohol under these conditions, and their only chance is to stop the tobacco.

The alcoholic or morphinist is a man who is acutely or chronically poisoned by his drug, and through the poisoning of his intellect cannot be expected to reason or act in a normal way, although heretofore he has always been judged by the standard of normal human beings. Until we realize that we must unpoison him before we can expect his mind to act normally, we shall fail in the solution of the problems which confront us in dealing with alcoholics.

Each individual case has its own separate problems. This treatment is offered as the best means of unpoisoning the patient and putting him in a position where we can deal with him with a clear, unpoisoned mind. By treating these patients, then, as individuals, we can get at each one's own problems and keep him from self-destruction.

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ANIMAL EXPERIMENTS WITH VON RUCK'S NEW TUBERCULOPROTEINS

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LOS ANGELES

In THE JOURNAL, May 18, 1912, appeared a preliminary announcement by Karl von Ruck[1] of his discovery of a tuberculin with which he asserted that he could produce immunity to tuberculosis in both man and animals.

Later he issued a pamphlet in which was given briefly his method of making this vaccine and the protocols of his experiments by which he demonstrated immunity. Also in another article[2] von Ruck discussed the subject in a little more elaborate way than that taken in his pamphlet.

His tuberculin, or vaccine as he termed it, contained in each cubic centimeter 10 mg. of protein of tubercle bacilli and a small amount of fatty extractives. In children this was injected in doses of from 0.05 c.c. to 0.6 c.c., depending on the age and number of doses given. One or two doses were given, but when two were used neither was so large as the single one.

In all 339 children were treated, both tuberculous and non-tuberculous. Examinations were made over a period extending from three to eight months following vaccination. "Prompt and uniform development of all specific antibodies was demonstrated after a single dose." Physical signs which were present frequently disappeared and "there was not a single instance in which a comparison did not indicate unmistakable improvement."

In a comparatively short time after 0.01 mg. of virulent tubercle bacilli was placed in "immune serum," that is, serum obtained from an animal which had been treated with von Ruck's vaccine, lysis was produced. When these bacilli, after being treated with the "immune serum" until lysis had been produced, were injected intraperitoneally into guinea-pigs, death was not produced, although controls injected with tubercle bacilli which had been treated with normal serum died in from five to six weeks.

Guinea-pigs after being "immunized" were infected by injecting 0.01 mg. of virulent tubercle bacilli into the lumen of the trachea. These were killed at the end of eight weeks and showed only slight enlargement of the lymph-nodes, no tubercle bacilli being found. The single control injected in the same manner as the "immunized" pigs died in twenty-three days, the autopsy findings showing generalized miliary tuberculosis.

Knowing the failure of other investigators to produce immunity to tuberculosis by the use of the dead bacilli, we (the staff of the Barlow Sanatorium, at which I was formerly resident physician) concluded to test the vaccine to see if we could obtain complete active immunity as asserted by von Ruck. Accordingly the laboratory of the Barlow Sanatorium purchased 10 c.c. of the vaccine and the work here reported was done in the sanatorium with the help and suggestions of Dr. Walter V. Brem, who was especially interested in the necropsy findings.

One c.c. of the vaccine was thoroughly mixed with 2 c.c. of sterile normal saline containing 0.25 per cent. phenol (carbolic acid). Of this solution .3 c.c. (1 mg. of tuberculoprotein) were injected each week for ten successive weeks into each of ten apparently healthy guinea-pigs. Injections were made underneath the skin of the abdomen after the hair had been clipped and the area sterilized. The dates of injection were as follows: Aug. 22 and 29, Sept. 5, 12, 19 and 26, and Oct. 3, 10, 17 and 24, 1912.

Five weeks after the end of the course of vaccine treatment of these animals, they were inoculated intraperitoneally with from 0.001 mg. to 0.1 mg. of virulent tubercle bacilli, culture H-37, obtained from the Saranac Laboratory for the Study of Tuberculosis. At the same time nine controls were injected intraperitoneally with the same amounts of virulent tubercle bacilli as the vaccinated guinea-pigs.

Tables 1 and 2 show briefly the weights at the time of inoculation and at death, dosage, days of life and necropsy findings of both vaccinated and control guinea-pigs.

It was noted that about the fourteenth day after the inoculations the vaccinated animals began to appear sick and by the twenty-first day this was very obvious. They did not eat well, their hair became ruffled, much of their

1. Von Ruck, Karl: A Practical Method of Prophylactic Immunization against Tuberculosis, a Preliminary Announcement, THE JOURNAL A. M. A., May 18, 1912, p. 1504.

2. Von Ruck, Karl: A Practical Method of Prophylactic Immunization against Tuberculosis, with Special Reference to Its Application in Children, Med. Rec., New York, 1912, lxxxii, 369.

activity was lost and they had gnawed deep holes into the boards of their pens. By about the end of the fourth week the controls began to appear ill in quite the same way as the vaccinated ones.

It will be noted that all guinea-pigs died of generalized miliary tuberculosis and that all had involvement of lungs, liver, spleen, bronchial and mesenteric lymph-nodes, with the exception of one guinea-pig in which the spleen was free and one in which the liver was free. While one vaccinated guinea-pig lived much longer than any non-vaccinated, 150 days and 94 days, respectively, yet the average length of life was almost the same, 57.7 days for the vaccinated and 55.2 for the non-vaccinated.

TABLE 1.—VACCINATED GUINEA-PIGS INOCULATED NOV. 25, 1912

Pig No.	Weight 8/22/12 gm.	Weight 11/25/12 gm.	Amount of Inoculation, mg.	Date of Death	Life Following Inoculation, Days	Weight at Death	Necropsies
291	630	600	.01	12/27/12	32	510	Generalized miliary tuberculosis. Lungs, liver, spleen, omentum, and bronchial and mesenteric lymph-nodes involved.
292	585	750	.001	1/ 2/13	38	510	Generalized miliary tuberculosis. Lungs, liver, spleen, omentum, and bronchial and mesenteric lymph-nodes involved.
293	720	821	.1	1/10/13	46	530	Generalized miliary tuberculosis. Lungs, liver, spleen, omentum, and bronchial and mesenteric lymph-nodes involved.
294	750	900	.001	3/ 7/13	102	...	Generalized miliary tuberculosis. Lungs, liver, spleen, omentum, and bronchial and mesenteric lymph-nodes involved.
295	645	870	.01	1/16/13	52	570	Generalized miliary tuberculosis. Lungs, liver, spleen, omentum, and bronchial and mesenteric lymph-nodes involved.
296	540	750	.1	4/24/13	150	450	Generalized miliary tuberculosis. Lungs, liver, spleen, omentum, uterus, and bronchial and mesenteric lymph-nodes involved.
297	630	900	.001	1/10/13	46	600	Generalized miliary tuberculosis. Lungs, omentum, spleen, and bronchial and mesenteric lymph-nodes involved.
298	435	740	.01	1/18/13	54	480	Generalized miliary tuberculosis. Lungs, liver, spleen, omentum, uterus, and bronchial and mesenteric lymph-nodes involved.
299	570	660	.1	1/21/13	57	390	Generalized miliary tuberculosis. Lungs, liver, spleen, omentum, and bronchial and mesenteric lymph-nodes involved.
300	450	630	.1	1/18/13	54	450	Generalized miliary tuberculosis. Lungs, spleen, omentum, and bronchial and mesenteric lymph-nodes involved.

TABLE 2.—CONTROLS INOCULATED NOV. 25, 1912

Pig No.	Weight gm.	Amount of Inoculation, mg.	Date of Death	Life Following Inoculation, Days	Weight at Death	Necropsies
279	780	0.1	1 /16/13	52	465	Generalized miliary tuberculosis. Lungs, liver, spleen, omentum and bronchial and mesenteric lymph-nodes involved. A caseating abscess filled the omentum.
280	1,110	0.1	12/29/12	34	465	Generalized miliary tuberculosis. Lungs, liver, spleen, omentum and bronchial and mesenteric lymph-nodes involved.
281	570	0.1	1 /10/13	46	555	Generalized miliary tuberculosis. Lungs, liver, spleen, omentum and bronchial and mesenteric lymph-nodes involved.
282	750	0.1	2 /27/13	94	650	Generalized miliary tuberculosis. Lungs, liver, spleen, omentum and bronchial and mesenteric lymph-nodes involved.
283	630	0.01	1 /18/13	54	540	Generalized miliary tuberculosis. Lungs, liver, spleen, omentum and bronchial and mesenteric lymph-nodes involved.
284	570	0.01	1 /19/13	55	360	Generalized miliary tuberculosis. Lungs, liver, spleen, omentum and bronchial and mesenteric lymph-nodes involved.
285	600	0.01	1 /16/13	52	...	Generalized miliary tuberculosis. Lungs, liver, spleen, omentum and bronchial and mesenteric lymph-nodes involved. One tubercle seen in right kidney. None in left.
286	510	0.001	1 /18/13	54	510	Generalized miliary tuberculosis. Lungs, liver, omentum, and bronchial and mesenteric lymph-nodes involved.
287	510	0.001	1 /20/13	56	435	Generalized miliary tuberculosis. Lungs, liver, spleen, omentum and bronchial and mesenteric lymph-nodes involved. Peritoneum studded with tubercles.

CONCLUSIONS

From our observations during these experiments, we must conclude that immunity was not produced by the vaccine, but it would seem possible that inasmuch as the vaccinated guinea-pigs became sick first, they were more susceptible at the time of inoculation than the controls.

I take this opportunity to thank Dr. W. Jarvis Barlow and the attending staff of the Barlow Sanatorium for their kindly interest and many helpful suggestions during the progress of this work.

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ACCIDENTS FOLLOWING THE SUBDURAL INJECTION OF THE ANTIMENINGITIS SERUM *

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The antimeningitis serum has been employed with constantly increasing frequency since 1906-1907, and those physicians who have come to have the widest experience in its use are unanimous in the opinion of its high therapeutic value. Elaborate reports[1] have now been published from America, France, Germany, and still other countries, and they agree in indicating that the reduction in mortality caused by epidemic meningitis and brought about by the serum is from two-thirds to three-fourths of the average percentages occurring in the same periods and places among the patients not subjected to the specific treatment. There is, at present, no other effective means of treatment of the disease known.

* From the Laboratories of the Rockefeller Institute for Medical Research, New York.

1. For bibliography see Flexner: The Results of the Serum Treatment in 1300 Cases of Epidemic Meningitis, Jour. Exper. Med., 1913, xvii, 553.

It becomes, therefore, a matter of great importance to discover and then to ascertain the reasons for any harmful effects arising in the course of the serum treatment and attributable to the treatment itself.

That an immune horse-serum can be safely injected into the cerebrospinal meninges in the lumbar region was first shown in connection with the antitetanic serum, which has been repeatedly injected in this manner without causing, so far as the reported cases indicate, untoward symptoms. That the antimeningitis serum can be administered with safety in the same manner is attested by large numbers of instances among children and adults who have been treated with the serum for suspected or established epidemic meningitis. But that accidents may sometimes attend the subdural injection of a foreign serum is obvious. The meninges are in such close anatomic relationship with the central nervous organs that what affects the one may come to affect the functions of the other. Moreover, in rare instances the injection of horse-serum itself has, as is well known, exerted an injurious action. It becomes necessary, therefore, not only to ascertain what the accidents are that may follow the administration of the antimeningitis serum, but to determine their causes and thus to separate those which are avoidable from those which, at present, may be unavoidable.

We may dismiss as unimportant the ordinary forms and grades of serum disease that follow the subdural as well as the subcutaneous or intravenous injection of horse-serum; but the mere fact of their occurrence should make us alert to the possibility that the severer effects of so-called anaphylactic shock may also, even if rarely, arise. Such an effect was indeed first described by me;[2] but it will perhaps be most useful to consider the severer types of accidents thus far reported. They have been, on the whole, small in number and may be considered according to the several explanations that have been offered for them. They have been variously attributed, first, to anaphylaxis; second, to rapid lysis of the meningococci; third, to excessive intracranial pressure; and fourth, to poisoning by the phenol preservative sometimes present in the serum. Certain physicians having had large experience with the serum have not reported them at all. In one or two instances, on the other hand, the number reported has, as compared to the number of cases treated with the serum, been large. This disparity itself emphasizes the necessity for a careful and critical study of the circumstances under which the severe symptoms have arisen.

I prefer to begin this consideration with the fourth possibility, since it has been brought forward by Dr. S. P. Kramer to explain several unfortunate results which came to his attention in connection with the administration of the antimeningitis serum in the Cincinnati Hospital.[3] Dr. Kramer has undertaken to account for them on the grounds that the serum in certain individuals is delivered into an open central canal of the spinal cord, through which it reaches in a concentrated form the fourth ventricle, at which point the phenol preservative has ready access to the respiratory center in the medulla, on which it acts injuriously, with the result that respiration is paralyzed. This explanation assumes, first, that the central canal of the spinal cord is open in many individuals and, second, that the disturbances of respiration are poisonous or toxic in origin. In order to support his hypothesis Dr. Kramer performed several experiments on dogs. The experiments consisted in the injection into the vertebral artery of a phenolized serum, or in surrounding the exposed medulla with a solution of phenol in water or serum, which procedures are said to have given rise to symptoms of respiratory failure simulating those following the subdural injection of the antimeningitis serum. Since no actual relationship exists between the conditions of these experiments and the conditions occurring in the subdural injection of the antimeningitis serum in human beings, they need not be regarded seriously; and this is particularly true since, as will immediately be shown, it is superfluous to invoke the presence of the phenol in the serum in order to account for the serious results mentioned.

Thus, if the explanation offered by Dr. Kramer is the correct one, no accidents should arise when a serum containing no preservative whatever is employed for subdural injection. The antimeningitis serum produced in France is prepared at the Pasteur Institute by Dr. Dopter and is called by his name. It is supplied in sterile containers, without preservative, and is merely stored for a time before use in order to remove the complement and reduce the risks of ordinary serum disease; and yet, in rare instances, serious symptoms, recalling those described by Dr. Kramer, have followed the administration of Dopter's serum. While it is true that the accidents are not, as a rule, fatal, yet in a very few cases death followed within a short time after the injection. It is, moreover, significant that the injection of the phenolized serum into the lateral ventricle is borne quite as well as its usual injection into the lumbar meninges. Now there does not exist a more direct path to the fourth ventricle than that of the cerebral ventricles. If, therefore, the mere presence of the phenolized serum within the fourth ventricle in children sufficed to bring about severe poisonous effects we should look for such a result from the intraventricular injections. And yet, not only has this not happened, but the latter injections have proved in several remarkable instances to be life-saving.[1] The accidents, moreover, have not been limited to children but have been observed in adults in whom a patent central canal of the spinal cord, if it exists at all, must be an extremely rare occurrence.

The experience with Dopter's serum, as well as with the intraventricular injection of the phenolized serum, disposes once and for all of the hypothesis of a toxic effect as accountable for the symptoms. We turn, therefore, to the consideration of anaphylactic shock resulting from the administration of the antimeningitis serum. In an early publication we described such an instance in a young child who, after receiving several injections of the serum in close succession without disturbing consequences, reacted severely to an injection made after an interval of sixteen days to counteract a relapse of the infection. The result was an acute anaphylactic reaction from which the child recovered only to succumb some days later to the meningitis itself. Since then some other instances of supposed anaphylaxis have been described in patients who had previously been injected with diphtheria antitoxin, or in whom, because of relapse, the injections of the antimeningitis serum have had to be resumed after intervals of days or weeks.[4] What is particularly impressive and reassuring is the

2. Flexner and Jobling: Serum Treatment of Epidemic Cerebrospinal Meningitis, Jour. Exper. Med., 1908, x, 141.

3. Kramer, S. P.: A Possible Source of Danger in the Use of Antimeningitis Serum in Young Children, THE JOURNAL A. M. A., May 3, 1913, p. 1348; Lancet-Clinic, 1913, cix, 304.

4. The reported fatal cases of this class have been as follows: Levy, Klin. Jahrb., 1911, xxv, 188, one; Hutinel, Presse méd., 1910, xviii, 497, two, one of which was complicated by tuberculous meningitis: Debove (cited by Hutinel, *loc. cit.*, p. 498), one; Chevrel and Bourdinière (L'hyg. gén. et appliq., 1910, v, 20), one.

fact that these severe reactions, which, theoretically, have been very much feared, have been, on the whole, very infrequent and, generally speaking, not fatal.

But severe symptoms have also been noted to follow a first injection of the serum. The question therefore arises as to whether these have been in all instances examples of anaphylaxis corresponding to the severe shock that occasionally follows a first subcutaneous injection of diphtheria antitoxin.[5] This is indeed the crucial point. In certain of the instances reported by Dr. Kramer and Dr. Parmelee[6] a severe reaction followed, not on the first, but on the second or third injection of the serum, given at brief intervals. In these instances anaphylactic shock can be excluded. Dr. Parmelee kindly supplied me with a brief account of the cases from which I derive this conclusion. If, then, the effects under discussion are not due either to the poisonous action of phenol or to anaphylaxis, what is their cause?

In the course of the immunization of horses with cultures of the meningococcus for the purpose of producing the antimeningitis serum the fact has been noted that the intravenous injection of the cultures, which at first is well borne, later becomes a source of danger to the animals. That is to say, after a certain degree of immunity has been established the further injection of the meningococcus cultures directly into the veins produces such a severe effect on the animals that some of them die suddenly within a short time after the inoculation. In order to avoid this result it has been found necessary to carry on the immunization of horses by the slower but safer subcutaneous injection of the culture. Dopter has been especially impressed with this phenomenon and has undertaken to explain it on the supposition that the immune animal possesses the power of rapidly dissolving the introduced meningococci, through which lysis there is set free such a large amount of dissolved toxin that the animal dies of an acute poisoning. In support of this view he has observed that when guinea-pigs are inoculated with a mixture of meningococci and immune serum they succumb in a short time and in a manner recalling the sudden death of the horses; while this effect is not observed[7] when a corresponding amount of the meningococcus culture is inoculated without the serum. On the basis of these observations an attempt has been made to explain the severe symptoms sometimes following the first injection of the antimeningitis serum on the supposition that the serum brings about such a rapid dissolution of the meningococci within the cerebrospinal exudate as to cause an acute poisoning of the nervous system. This explanation is surely inadequate to account for most instances observed in man, since it does not apply to the cases in which severe symptoms arose but in which the number of meningococci within the inflammatory exudate has been very small and altogether insufficient to give rise to the soluble toxin in question, or in which the meningitis has been caused not by the meningococcus but by the pneumococcus.[8]

There remains one other possible source of the accidents, namely, that of increased intracranial pressure. In this connection it should be recalled that the severest symptoms relate to disturbance of respiration and in a far slighter degree to the heart's action. Usually the respiration fails while the heart may continue still to act well. For this reason artificial respiration has frequently sufficed to restore the patient. That a dangerous degree of increased intracranial pressure might be produced by the subdural injection of the antimeningitis serum was recognized at the inception of the serum treatment, whence it was advised to inject less serum than cerebrospinal fluid removed and not to employ maximal doses.[2] Because of the rarity of serious effects this warning has fallen more and more into disuse until now the rule is to give far larger doses of serum than were originally employed and often to disregard the relation of dose of the serum to age of the patient. It is necessary always to keep in mind the dangers arising from increased intracranial tension. Cushing, who has especially studied the condition experimentally and in human patients, states that the medullary center of respiration already impaired from compression endures an additional burden less well than a medulla not so embarrassed. He observed that in death from a fatal increase of intracranial tension the arrest of respiration precedes that of the heart; and he pointed out that in clinical states representing conditions of general compression, among which is acute meningitis, the tension of the fluid in the cerebral meninges more nearly corresponds with the degree of pressure capable of producing the symptoms of compression.[9]

We see, therefore, a close relationship between the effects of increased intracranial tension and the serious symptoms which have sometimes arisen on the injection of the antimeningitis serum. Koplik[10] early suspected this danger and therefore advised the substitution of the injection of the serum by gravity for injection by syringe. The employment of the gravity method has another important advantage, namely, that it permits the immediate withdrawal of fluid at the first sign of any embarrassment to the function of respiration. Recently a further safeguard has been introduced by Sophian,[11] who employs the registration of the blood-pressure to supply an ocular guide to the injection of the serum by the gravity method. Sophian has probably had the largest single experience in the personal administration of the antimeningitis serum and he reports some 1,500 injections without a single serious accident. From the effort to guard against this preventable danger Dr. Kramer has made the following wholly gratuitous assumption in his paper: "Indeed, so common has this catastrophe become that in a circular issued by the New

5. This has been the prevailing view. But the especial susceptibility of patients in a desperate condition at the time of injection, that is, fulminating or very severely ill and usually unconscious subjects, should arouse suspicion. Netter (Compt. rend. Soc. de biol., 1910, lxix, 12) has reported four such fatal cases among 100 patients treated by him; Hohn (Klin. Jahrb., 1908, xx, 368), one case among thirty-seven; Martin, of the Pasteur Institute Hospital (Paris Letter, THE JOURNAL A. M. A., Nov. 16, 1912, p. 1807), two cases among twenty treated, with which are to be compared the 7 cases of Dr. Kramer and the 8 cases of Dr. Parmelee. Most observers have not experienced them. Jehle (Wien. klin. Wchnschr., 1909, xxii, 619) refers them to status lymphaticus.

6. Parmelee, A. H.: Epidemic Cerebrospinal Meningitis, THE JOURNAL A. M. A., March 1, 1913, p. 659.

7. Briot and Dopter: Pathogénie des accidents observés au cours de l'immunization des chevaux contre le méningocoque, Compt. rend. Soc. de biol., 1910, lxix, 10; Action expérimentale du sérum antiméningococcique sur le méningocoque, *ibid.*, p. 126. Dopter, Ch.: Action bactériolytique comparée du sérum antiméningococcique sur les méningocoques et les germes similaires, injecté par voie veineuse, *ibid.*, p. 524; Le pouvoir lytique du sérum antiméningococcique est-il spécifique?, *ibid.*, 546; Différentiation du méningocoque et des germes similaires par l'"épreuve du péritoine," *ibid.*, p. 600.

8. Netter, A.: Compt. rend. Soc. de biol., 1910, lxix, 12, 166. Netter, A., and Debré, R.: La méningite cérébro-spinale, Paris, 1911, p. 261.

9. Cushing, H.: Mütter Lecture, 1901, Some Experimental and Clinical Observations Concerning States of Increased Intracranial Tension, Am. Jour. Med. Sc., 1902, cxxiv, 375.

10. Koplik, H.: The Serum Treatment and the Prognosis, under Various Forms of Therapy, of Cerebrospinal Fever, Med. Rec., 1908, lxxiv, 557.

11. Sophian, A.: A New Method for Controlling the Administration of Serum in Epidemic Meningitis, THE JOURNAL A. M. A., March 23, 1912, p. 843; Epidemic Cerebrospinal Meningitis, St. Louis, 1913.

York Department of Health, directions are given as to what should be done when breathing stops following the administration of the serum." The Commissioner of Health of the New York Department of Health has already replied to this unwarranted statement and intimated that the instructions for the administration of the serum were prepared to avoid the dangers the disregard of which may be followed by such serious consequences.[12]

If we now return to the consideration of the circumstances surrounding the treatment of the cases reported by Dr. Kramer, as well as those referred to by Dr. Parmelee, we at once notice the heaping up of unhappy accidents, while similar ones have arisen with rarity in other places. This fact alone suggests causes local in nature, since it can hardly be imagined that the extraordinary experience is the result either of anatomic conditions in the patients or peculiarities in the infecting meningococcus. So far as I have been able to make out, the doses of serum employed in the cases reported by Dr. Kramer, as well as those referred to by Dr. Parmelee, have, almost without exception, been maximal, and this is particularly true among the children in whom severe symptoms developed.[13] Moreover, there is no indication of the use of safeguards in the administration of the serum. The injections, as far as is stated, were made with a syringe. In a number of instances the accident occurred, not at the first, but at some subsequent injection of the serum, which itself is hardly consistent with the supposition of the action of a toxic agent. Altogether, it seems to me that the unhappy experiences can be explained more satisfactorily on the supposition that they resulted from increased intracranial pressure than that they were examples of anaphylactic shock. Since, in some instances, the severe symptoms did not arise on the first injection, but on the second or third injection of the serum, given in close succession, it is quite certain that anaphylaxis played no part. It is equally certain, in view of what has already been stated, that the phenol preservative can be excluded. There remain, therefore, two possibilities; namely, first, that the severe effects were caused by toxins liberated by the immune serum from the meningococci, which then must have been present in large numbers, or, next, that they were the result of excessive intracranial pressure. That they were not caused by meningococcus toxin is shown by the fact that in some of the reported cases the cerebrospinal fluid removed contained either few microorganisms or even none that were demonstrable in microscopic preparations. Hence, the indications are that either in all the instances, or in practically all, excessive intracranial pressure was the source of the accidents.

We must not lose sight of the essential fact that in epidemic meningitis the struggle is with a highly fatal disease and the one means now possessed to combat it is the antimeningitis serum. From this it follows that it is not justifiable to withhold the remedy in spite of some small risk, in view of the far greater dangers to which the patients are exposed by the disease itself. Nor is it always possible to ascribe serious symptoms to the serum even when they follow closely on the treatment. Sudden death in epidemic meningitis is a not infrequent occurrence; and cases have even been reported in which death has taken place while the physician was engaged in getting ready to make the serum injection and even before lumbar puncture had been performed. The attempt to discredit the antimeningitis serum on the basis of an unfortunate experience seems, when everything is considered, hardly defensible.

12. Lederle, E. J.: The Treatment of Cerebrospinal Meningitis with Specific Serum, Lancet-Clinic, 1913, cix, 485.

13. Dr. Kramer's patients received serum as follows: In a child of 10 months 20 c.c. of cerebrospinal fluid were removed, and 20 c.c. of serum were injected; in one of 4 years 30 c.c. of cerebrospinal fluid were removed and 30 c.c. of serum injected; in one of 3½ years 20 c.c. of fluid were removed and 15 c.c. of serum injected; in one of 7 years, 45 c.c. of cerebrospinal fluid were removed and 40 c.c. of serum injected; in one of 5 years, 25 c.c. of cerebrospinal fluid were removed and 37 c.c. of serum injected; a second injection of 30 c.c., on the next day, produced no symptoms; the following day 30 c.c. of fluid were withdrawn and 30 c.c. of serum injected, followed by death; in one of 10 years, 40 c.c. of cerebrospinal fluid were removed and 40 c.c. of serum injected; in one of 9 years, 50 c.c. of cerebrospinal fluid were removed and 40 c.c. of serum injected.

Dr. Parmelee's patients who succumbed after the first injection were adults. There is no record of the quantity of cerebrospinal fluid removed. They received respectively 45 c.c., 45 c.c., 40 c.c., and in one case the quantity is not mentioned. The patients who succumbed after the second injection included a child of 5 years, in whom the first dose was 20 c.c. and the second 15 c.c.; an adult of 50, in whose case the record states merely that 45 c.c. were given in all and does not refer to the cerebrospinal fluid removed; an adult of 40 years, who is said to have received 30 c.c. in all; and a child of 2 years who received 25 c.c., and twelve hours later 20 c.c., and regarding whom it is not stated whether or not cerebrospinal fluid was removed.

EXPERIENCE WITH OVER ONE THOUSAND CASES OF A FORM OF CHRONIC URETHRITIS *

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It is generally conceded that there are few conditions more nerve-racking or distressing to a person than an infection with a venereal disease. This is particularly manifested and emphasized in those afflicted with a long-standing urethritis. The serious nature of the maladies which may be acquired through sexual intercourse is being daily impressed on the public by the dissemination of literature bearing on this subject. Most men are already cognizant of these dangers, however, either in having been victims themselves, or from knowing the experience of others. The patient has to bear not only the physical suffering incident to venereal diseases, but also the mental distress due to the embarrassing secrecy of the situation, to the objectionable restrictions, which frequently cause humiliation, to fear of exposure, to the danger of infecting others, and to the possibility of the many painful and serious complications. However well-recognized these facts may be, they apparently do not and never will deter men from gratifying their sexual inclinations. Therefore it becomes incumbent on us to give this class of patients our earnest attention and best endeavors.

A study of the mental attitude assumed by men regarding the condition of their sexual organs is interesting. We have found most patients to be safe and sane, fortunately, so that they will follow instructions fairly well and persist in the treatment, even if it is weeks or months before they are pronounced cured. Then there is the highly nervous or ultraconservative man who is more or less of a fanatic or neurasthenic. He persistently complains and worries over the most trivial conditions, exaggerating every symptom and pain, however insignificant. When a patient of this class has gonorrhea, he acquires the objectionable habit of stripping the urethra at frequent intervals, following

* Read at the One Hundred and Fifteenth Annual Meeting of the Medical and Chirurgical Faculty of Maryland, April 22-24, 1913.

the stripping with a macroscopic examination of the urine. Should he find any discharge, whatever the quantity or character, or should the urine contain the minutest shreds, it will prey on his mind, causing despondency, and psychic disturbances out of all proportion to the disability. It is not always the ignorant who make up this class, many being the more intelligent patients. Finally, we have the reckless fellow who is too ignorant or too careless to understand the serious nature and grave consequences incident to venereal infections and fails to realize that the essential step in promoting a cure is proper attention. He believes that the absence of a purulent discharge in gonorrhea is significant of a cure, and neglects medical advice, especially when the treatment in any way inconveniences him. He restricts himself to nothing, and permits his condition to run on from bad to worse, possibly infecting others as well as jeopardizing his own welfare.

In the treatment of a urethritis it first becomes necessary to ascertain the nature of the most important symptom, namely, the discharge, particularly if gonococci are the underlying cause. However simple this may be in acute cases, in chronic conditions it is not always an easy matter to determine and, as the treatment in non-gonorrheal urethritis is so essentially different, it is of paramount importance to prove decisively the presence or absence of the gonococci.

It is not our intention to go into detail as to this examination, but, speaking generally, it includes:

1. A microscopic and bacteriologic examination of the urethral, prostatic and seminal vesicular secretions obtained by the usual procedure of massage, etc., and of the urinary sediment. The possibility of the prostatic utricle and Cowper's gland harboring the infection must also be borne in mind. These examinations to be made under favorable, and if found negative, under unfavorable conditions; namely, after the drinking of alcoholic beverages, preferably beer, after exercise, and after the anterior urethra has been irritated by the passing to and fro of an aboule (bulbous bougie), the largest that the meatus will admit. The procedure last mentioned is important for it not only helps to reveal the condition of the anterior urethral mucous membrane but, after its application, gonorrheal organisms which have been deeply imbedded in the mucous membrane or particularly in the follicles and infiltrated areas, and have there assumed a more or less latent state of activity, will again show their presence in clinical manifestations and may then be detected by the usual bacteriologic examination.

2. The complement-fixation test. This test is based on the same theory as the Wassermann test in syphilis. Mueller and Oppenheimer[1] deserve the credit of being the first to describe this test, and for having performed it on patients suffering with gonorrheal arthritis. The stumbling-block has been in the antigen, owing to the fact that the different strains of gonococci serologically act independently. Schwartz[2] and McNeil prepared polyvalent antigens and found that the one containing twelve strains gave the best results. The test promises much for the future as a means of testing the presence of gonococci in the human body.

When non-gonorrheal, the discharge may be due to a variety of causes:

1. It may be due to infections with other organisms, such as the colon bacillus, the staphylococcus, the tubercle bacillus, *Micrococcus catarrhalis*, etc.

2. The discharge may be secondary to non-gonorrheal prostatitis, manifested by a more or less indurated, large or normal-size gland, the secretion showing pus-cells with or without organisms.

3. The discharge may be non-bacterial, due to gouty, rheumatic or lithemic disturbances, or to traumatism.

4. The discharge may be due to a urethritis secondary to a cystitis or pyelitis, or occurring during the course of an eruptive fever. Syphilis and grippal infections also occasionally give rise to a urethritis.

5. The discharge may be due to granulations and infiltrations of the urethra (non-gonorrheal).

In our experience the last-named form, granulations and infiltrations of the urethra, outnumbers by far all the others in making up the list of non-gonorrheal urethral conditions; and it is on this class that we desire to lay particular stress.

GRANULATIONS AND INFILTRATIONS OF THE URETHRA

The condition was described first by Otis and later by Oberlander, who made urethroscopic studies of the urethra and described these pathologic areas more or less minutely and divided them into soft and hard infiltrations.

The soft infiltrations are localized foci of round-cell infiltration chiefly around the urethral glands, the forerunner of a connective-tissue change. Slightly elevated granular areas or distinct granulations may also be seen. The catarrhal condition present over these areas and the desquamated epithelium is the source of the discharge found at the meatus. Hard infiltrations, the advanced stage of the soft, show that connective-tissue formation has taken place. The walls of the canal in these places are harder, owing to the presence of fibrous tissue. Distinct narrowing (beginning stricture) is observed. It is not our aim to differentiate the varieties of these urethral infiltrations, but to locate them, irrespective of their condition, whether hard, soft or medium, and to give the method and urge the importance of the restoration of the uretura to its normal caliber and distensibility.

The usual symptoms of this form of urethritis consist of nothing further than a more or less purulent drop which collects at the meatus from time to time, or is seen only after stripping the urethra, particularly in the morning—the notorious "morning drop"—or when the patient has refrained from passing urine for some hours. There is little or no pain, except perhaps during periods of intense sexual excitement. There is no disturbance in micturition, but the urine in the first glass will invariably contain shreds, that in the second and third being clear; or, if the anterior urethra is first washed out, all glasses will contain clear urine. Trifling as these manifestations may be, it is just such patients who run from one physician to another and undergo the extremes of treatment. Advised by some to let it alone, in the hands of others they go through the whole gamut of treatment—prostatic massage, irrigations, instillations, injections, vaccines, serums and instrumentations of various kinds and degree, to say nothing of balsams, *ad nauseam* for not only the patient but also the doctor as well. Realizing the importance of relieving this class of patients both physically and mentally, we have pursued the following method:

After a thorough examination has proved the absence of the gonorrheal organisms or other infections, or of any involvement of the posterior urethra, prostate and other adnexa, we may be certain that the focus of trouble is in the anterior urethra. This can and must be found

1. Mueller and Oppenheimer: Wien. klin. Wchnschr., 1906, No. 19, p. 894.
2. Schwartz: Am. Jour. Med. Sc., 1911, cxli, 693.

by the introduction of an aboule of sufficient caliber to stretch the walls of the urethra, so that in contradistinction to the normal smooth mucous membrane the granular and infiltrated areas may be felt as rough spots or perhaps as actual obstructions. It is our belief that the degree of distensibility of the normal urethra is far greater than is generally taught and accepted; consequently we find that to demonstrate these pathologic lesions requires instruments of much larger caliber than commonly employed. An aboule, the largest that the meatus will admit, may or may not detect these spots; for instance, the urethra may feel perfectly smooth with No. 30 F., but with No. 33 F. distinct roughness will be observed, and a 35 F. may be arrested at this thickened area. Another urethra may feel smooth with 33 F. and require a 35 F. to detect the pathologic areas. As the caliber of the urethra varies in different individuals we cannot place the normal at any fixed number. It may be put down, almost as an invariable rule, that when the symptoms as described are present, the proper search of the anterior urethra with the proper size aboule will surely detect the area whence the morning drop or mucopus has its origin. The one thing above all others likely to interfere with the proper search of the urethra to detect these infiltrated areas is a meatus too small to admit an aboule of sufficient size. It is an anatomic fact that the meatus is the narrowest point of the urethra; therefore, should the meatus be of insufficient caliber, one need not hesitate to perform a meatotomy and remove the obstacle which blocks the way for the proper examination and future cure. Indeed, if the infiltrations are near the meatus, which is often the case, the meatotomy alone without subsequent dilatation will effect a cure.

AUTHORS' METHOD OF TREATMENT

Our method for performing meatotomy has already been described in detail.[3] Briefly, it consists in suturing the edges of the skin and mucous membrane on either side of the median incision on the floor of the urethra. This suturing of mucous membrane to skin leaves no raw surfaces to give rise to troublesome bleeding or possible agglutination of the cut edges which would afterward necessitate their being pulled apart, or kept open by the use of plugs. The freedom from pain, annoyance and discomfort experienced by the patient after meatotomy done in this way justifies one in making use of this operation more frequently, especially as it so markedly facilitates the dilating process.

In addition to the ordinary bougies, various instruments, particularly the two-bladed dilators of Oberlander and the four-bladed dilator of Kollman, were devised for the purpose of removal of these areas of infiltration. These dilators have the advantage of not requiring a large meatus, but the many objectionable features outweigh the advantages. Some of these are that the dilatation is not uniform; in hard infiltrations the dilator yields rather than the thickened area itself; furthermore, asepsis is carried out with difficulty and the instruments are expensive, fragile and easily broken. In the event that a meatotomy was necessary, and allowing sufficient time for the proper healing of the wound, a fairly large aboule, about a No. 30 F., is introduced into the urethra as far as the bulb. Any obstructions or rough spots may easily be felt by the examiner, particularly as the instrument is being withdrawn. Should nothing be detected with a 30 F., larger sizes are introduced one after another until one of sufficient caliber is reached that will detect these areas. The number, extent, character and location of the areas should be noted, but the technicalities of the actual measurements with various instruments devised for this purpose are entirely superfluous and have no practical bearing on the future treatment.

To obtain the best results in the removal of these infiltrations it is imperative to make each treatment as painless as possible. This may be successfully accomplished by a simple method of using the local anesthetic. The technic consists in introducing into the urethra a 1/8-grain cocain tablet as far back as the bulb. This is easily executed with a bayonet-shaped ear-forceps well lubricated with glycerin or other lubricant, preferably one which is not oily. Four of these tablets are required to produce the necessary anesthesia. They are deposited in the urethra, beginning at the bulb, the last one being at the meatus. With the fingers closing the meatus, the canal is massaged so that the cocain is well and effectually distributed. The advantage of this method over the use of solutions is that not infrequently the solution, unless precautions are taken, will pass back into the bladder and thus fail to accomplish its desired purpose. Furthermore, it is less dangerous and incidentally less expensive, for the amount of cocain employed is much smaller than when used in solution. We have followed this method thousands of times and have yet to see the slightest untoward symptoms.

Allowing five minutes for the cocain to act, a straight or curved bougie of the same caliber as the number of the aboule with which the pathologic areas were previously detected, is introduced into the urethra as far as the bulb. Gentle massage over the now distended urethra may be used, although this is not absolutely essential. The instrument is allowed to remain *in situ* for five minutes unless the introduction was easy and accompanied with but little resistance, in which case it is withdrawn and the next size inserted and allowed to remain. The amount of bleeding likely to follow this instrumentation will of course depend on the extent to which these infiltrations have been stretched and broken.

The interval before the next treatment, and the decision whether the same number bougie or one of larger caliber should be used, depend wholly on the amount of reaction following the previous treatment, namely, bleeding and pain. In any case it is advisable in subsequent treatments to begin with an instrument of the same size as that employed on the previous occasion, and then to follow it up with the next number. Naturally a great deal will depend on the judgment and experience of the operator to determine the length of time between treatments and how much to do at each one. The old adage, "more haste less speed," is appropriately applied here and should be borne in mind. In our experience we have found that the intervals between treatments should never be less than five days, and as larger instruments are indicated, the caliber should never exceed one number at a time and preferably not more than one number per treatment.

It is well from time to time to examine the urethra with various sizes of aboules, to note what progress has been made toward ironing out the rough areas which, in order to be detected, would now require an instrument of larger size. For instance, a No. 34 F. aboule which might previously have been arrested or might have caused considerable bleeding in its passage, can now be passed easily with little or no hemorrhage following. The treatment along these lines should be continued

3. Likes, Sylvan H., and Schoenrich, Herbert: Meatotomy: A Simple Method, THE JOURNAL A. M. A., May 3, 1913, p. 1359

until an aboule from five to ten points larger than the one originally used can be passed through the urethra without being arrested and without causing much bleeding. When this has been accomplished and sufficient time, generally about two weeks, has elapsed after the last treatment for the resulting soreness and edema to disappear entirely (the edema in our opinion acting like Bier's passive hyperemia and helping to absorb the inflammatory products), it will generally be found that the mucus will no longer appear and the shreds be so reduced in quantity that probably only a few flakelets will be left. Should the treatment, however, not have the desired result, the stretching process must be resumed and the urethra dilated up to a higher point. One may feel almost certain that with the proper degree of stretching, differing in different individuals, a cure will almost invariably result when the treatment is carried out to a sufficient extent to restore all parts of the anterior urethra to its normal caliber. It will rarely be found necessary to use any injection treatment or internal medication; but it is suggested that occasionally smears be made. In the event that numerous organisms are found, mild non-irritating injections will not be amiss.

While we recognize the excellent work and achievements so recently accomplished by improved urethroscopes in the posterior urethra their application in the anterior urethra has not in our experience given the same gratifying results, except for diagnostic purposes.

No attempt has been made in this article to tabulate the results in the large number of our cases of this form of urethritis, extending over a period of many years, or to append burdensome statistics of the percentages of cures and failures; but our results have been so uniformly gratifying and successful that we do not think it amiss to direct the attention of the profession to this phase of anterior urethritis. We believe that if these fundamental facts are borne in mind, valuable service can be rendered by this simple method of careful and thorough exploration of the urethra, with subsequent systematic dilatation, and that a class of patients who are frequently a bugbear to the practitioner as well as to the specialist may be permanently cured. These patients often give a history of having gone through a variety of treatments, conscientiously following all forms of restrictions necessary and unnecessary until they become mental and physical wrecks; and incidentally financially embarrassed and thoroughly disgusted with themselves, the doctor and gonorrhea.

1134 Linden Avenue.

CASE OF (SYPHILITIC?) ULCER OF THE BLADDER

IRVING SIMONS, B.S., M.D.

NASHVILLE, TENN.

On account of the rarity of ulcer of the bladder, in behalf of its successful treatment, and lastly, on account of some unique features in this particular case, it occurred to me that it might be worth recording.

History.—The patient, P. J., male, aged 24, house-painter, married, denies gonorrhea and lues. He has three healthy children; all have come under observation, and have been thoroughly examined. Wife has had no miscarriages. For almost two years he has had hypogastric pain, dull and dragging in character; it was at first intermittent, but now has become practically continuous day and night. Pain increases as soon as the bladder becomes even moderately distended with urine, so that he has been voiding about every hour daily, and during the last six months about five or six times at night. He experiences relief after emptying the bladder. There is no loin pain, or pain suggestive of either renal or ureteral stone. He has never noticed any abnormality in the urine passed at any time. He complains of dyspnea practically all the time, even on very slight exertion. About a year ago he had an attack of weakness, loss of appetite, some fever (?), and lost 15 pounds in weight; was suspected of being tuberculous.

Record of Micturition.—Patient voided urine, November 11, at 6:00, 7:20, 8:00 and 8:25 p. m.; three times during the night; at 6:00 a. m., November 12, and three times from 6:00 to 11:00 a. m.—during seventeen hours, eleven times.

Examination.—(Abstract) November 12: Negative, except for the following: Lungs: A few subcrepitant râles heard just above the left clavicle at the end of inspiration. Abdomen: Not tender to pressure. Prostate: Somewhat generally enlarged; not tender; no nodules felt. Urine: Several examinations showed clear, amber, acid urine without sediment; normal except for the presence of a moderate number of white cells in centrifuged specimen. These were present in every examination. No red cells present. Urine repeatedly negative for tubercle bacilli.

Course.—December 3: Stone searcher passed; no stone felt.

December 5: Cystoscopy. In the region just behind the trigone several round ulcers with clean-cut edges, about twice the size of a normal ureteric orifice; on one of them an attached blood-clot. Left ureteric orifice not enlarged, but covered with a bit of mucus. Right ureteric orifice somewhat irregular, due to the proximity of a larger irregular, ulcerated patch adjoining it on its lateral aspect. Just mesial to the right ureteric orifice and in the trigone, a very small reddened spot, resembling a tubercle that has not yet ulcerated.

A few bladder irrigations were given with silver nitrate, but patient passed from observation until six weeks later, when he returned, complaining of exacerbation of the condition, especially of the hypogastric pain. Urine showed red as well as white blood-cells.

January 22: Cystoscopy: Entire trigone and small part of post trigonal region looked raw, angry, red; markedly injected; no distinct ulcerations seen. Indigocarmin injected and a dark blue stream appeared from both ureters in twenty minutes.

On account of lack of satisfactory improvement under local treatment, a complement-fixation test for syphilis (Noguchi method) was done February 15, and proved positive.

Deep injection of mercury salicylate in ordinary doses about four or five days apart were instituted, and after the fifth injection the patient was symptomatically cured of the hypogastric pain and frequent micturition. Five more injections were given, and treatment stopped March 17.

A second Noguchi reaction done April 5 (and done with great care, along with several slightly positive serums) proved absolutely negative.

Cystoscopy on April 15 showed a normal bladder.

At the present time, May 30, 1913, the patient remains symptomatically cured.

This case, while not unique, is, I believe, worth recording. The presence of ulcers in the bladder, the failure to respond to treatment with the usual drugs, the positive Noguchi reaction, the rapid disappearance of the symptoms after a few mercurial injections, and the negative Noguchi reaction following these injections, would suggest a diagnosis of syphilis of the bladder.

Objections could be raised on the ground that some chronic inflammatory processes are favorably affected by the injection of mercury; and it is to be inferred that this is the point of view taken by Buerger in his second case of bladder ulcer in which, because the lesion did not react to fulguration, he advised and obtained a cure

with mercurial injection in the presence of a negative Wassermann.[1]

In favor of the syphilitic etiology is the fact that along with the cure due to the deep injection of mercury the complement fixation reaction became negative. This is of importance, because it is a substantiated fact that in cases with non-specific positive reactions the non-specific amboceptor in the patient's serum does not, as a rule, disappear after the institution of mercurial treatment.

Whether this case is the result of inherited syphilis can only be suspected. In favor of this, however, is the absence of any syphilitic manifestations in any of the third generation, who have been thoroughly examined, and the absence of history of miscarriage of any of the issue.

I regret that photographs of the bladder lesion were not made at the first cystoscopy. They were seen at that time also by Dr. E. M. Sanders, who agreed with me that tuberculosis was the most probable diagnosis. A careful reading of the description will show that we were somewhat justified in this tentative diagnosis.

For the Noguchi tests I am indebted to Dr. R. L. Jones of the City Board of Health.

132 Eighth Avenue North.

ADVANCED TREATMENT OF PUERPERAL INFECTION *

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CHICAGO

The history of the treatment of puerperal fever parallels our most intricate problems. It has taken many years and many headstones to enable us to read the handwriting on the wall and abandon the indiscriminate uterine curettage, uterine and vaginal douching, hysterectomy and vaginal drainage, and dissection of thrombosed veins. This does not seem strange when we pause to consider the difficulty which the average author of medical books experiences in eliminating the traditions of medicine from his text. Added to this is the chaotic status of our nomenclature, which has not reached a universal classification. While it necessarily limits our conclusions to those drawn from personal experience, it also deprives us of accurate statistics which could present clearly defined pictures and furnish us with valuable data on which we could formulate a rational medical procedure. This unfortunate condition is not limited to America; the nomenclature is equally as unreliable in European medical centers, even among those who speak the same language and are of the same nation.

Owing to the confusion associated with the title "puerperal infection," I take the liberty of defining my personal interpretation of the term. Puerperal infection includes all local and general infections following abortion and labor either premature or at term, in which the primary focus is in the pelvis.

The exciting cause is one of the pathogenic bacteria: streptococcus, colon bacillus, staphylococcus, pneumococcus or gonococcus. I have no intention of covering the milder infections in this paper, such as those caused by the colon bacillus, staphylococcus or gonococcus and the mixed infections, all of which frequently escape detection and are classified by the medical attendant as milk fever, malaria, typhoid, or "cold."

The graver forms of puerperal infections are those due to the streptococcus, occasionally the pneumococcus, and require the most careful management to conserve the vitality of the patient. In this type any operative procedure, the derangement of the stomach by medication, or even allowing the baby to nurse from the mother's breast, may be the determining factor in a fatal termination of the disease.

For the intelligent consideration of this important subject, the following points must be considered:

1. Puerperal infection is not usually a local disease but is a general infection or bacteriemia, and the micro-organism may be detected in the blood-stream by making a blood-culture. This is clinically demonstrated by the complication of endocarditis, pyelitis, pleurisy, phlegmasia alba dolens and other remote infections.

2. The primary focus is located in the parturient canal, endometrium, tubes, cervix, vagina or perineum, and is secondary in importance to the general infection.

3. In the severe bacteriemic, or general infections, the streptococcus is usually responsible. The pneumococcus, a variety of streptococcus, is sometimes found.

4. When there is a pyemia some variety of the staphylococcus or the colon bacillus is usually the cause. This organism does not multiply in the blood-stream as does the streptococcus, and is usually localized.

In order to inaugurate a rational treatment in puerperal infection, it is imperative to ascertain by a blood-culture the germ causing the infection. This is accomplished by applying a tight bandage to the upper arm and puncturing the distended median basilic vein with a large needle under careful aseptic technic, and drawing out about half an ounce of blood into a sterile glass container. From this specimen an autogenous bacterin is made. It requires five days to be absolutely certain that no other living germ is present; consequently it is wise, after the micro-organism has been isolated, to start in a bacterin treatment first with 15 c.c. of serum intravenously to be followed with a reliable stock vaccine.

TECHNIC FOR MAKING AN AUTOGENOUS VACCINE

The simplest and best method is by means of a clot-culture. Five c.c. of blood are drawn and placed in an ice-box for eight hours to cool. The serum which contains the antiseptic properties of the blood is removed with a pipet. The blood-clot is removed to a sterile container and incubated, eighteen hours for the streptococcus and twenty-four hours for the colon bacillus and staphylococcus. A smear is made for microscopic examination. Agar-agar is smeared with normal blood and a mass-culture made by inoculating it from the blood-culture, and incubating for eighteen hours. The streptococci are removed by suspending the mass-culture in sterile, normal salt solution. This suspension is now a concentrated bacterin with living germs.

The number of germs is determined by counting a drop of the serum from the red pipet which has been diluted with 1:20 carbol fuchsin. The counting method is the same as that which is used in making a blood-count, and will give the number of germs in 1 cm. With this number as a basis, any desired number of bacteria per cubic centimeter may be prepared by diluting with sterile normal saline solution.

The killing of the micro-organism is ordinarily accomplished by heating to 56 or 60 C. (132 or 140 F.) for one hour, or by some chemical means. Greater heat than 60 degrees produces a chemical change that ren-

1. Buerger, Leo: Ulcer of the Bladder, THE JOURNAL A. M. A., Feb. 8, 1913, lx, p. 6.

* Read before the Kane County Medical Society, May 7, 1913.

ders the germ therapeutically inactive. This change frequently occurs if the germs are heated to 70 C. (158 F.) for one hour, as some text-books recommend. One heating at the proper temperature is sufficient. When the bacterin is prepared, its sterility remains to be determined. There is a possibility that it has been contaminated with organisms, especially tetanus bacilli. This is determined by the ordinary bacteriologic method of plating out and examining after incubation for twenty-four hours of growth.

The bacterin is next examined for tetanus, by inoculating 1 c.c. of bacterin into 25 c.c. of freshly boiled glucose bouillon. The air is driven out by covering the culture with sterile paraffin, which produces an anaerobic condition. The culture is incubated for seventy-two hours, and 1 c.c. of this culture is injected into the root of the tail of a white mouse. If tetanus bacilli are present, the mouse will develop symptoms of tetanus toxemia within ten hours. It is customary, but not necessary, to preserve the bacterin by the addition of 0.4 per cent. of trikresol.

When a patient suffering with streptococcus infection recovers, she passes through two stages:

1. The bacteria in the blood have become opsonized by the antibodies produced by the bacteria.

2. The opsonized bacteria have been devoured by the leukocytes.

It is therefore apparent that if we are to obtain results with autogenous vaccine, the patient must have within herself the power to opsonize the bacteria, as well as a sufficient number of white blood-corpuscles to consume the opsonized bacteria. Clinical experience demonstrates that the administration of vaccines is unsatisfactory unless there is a leukocytosis above 15,000. When the count is below this number, the administration either hypodermically or orally of nuclein is indicated. Observations have been made in which the leukocytosis has increased numerically within an hour after the administration of nuclein. Cold bathing, salicylic acid and pilocarpin also increase the leukocytes.

Negative Phase.—After the first injection of a small dose of vaccine — 15 million — the antibodies are decreased with a falling of the opsonic index. This is followed by a rise of the opsonic index, due to a reaction on the part of the patient. This phase is recognized clinically by a slight rise in temperature and an increase in the discharge from the wound. If there is a decided rise in temperature, the vaccine dose has been too large.

Failure to obtain results with the vaccine treatment is due to one of the following causes:

1. The exciting cause, or the proper organism, has not been found.

2. The initial dose may have been so large that the patient has been overwhelmed. Bacterin is a toxin, not an antitoxin, and is administered in order that the individual may acquire the ability to produce antibodies.

3. While the vaccine may act as an antibody on the bacteria present, if there is not a sufficient number of leukocytes to dispose of the bacteria, the bacterin administered is therapeutically ineffective.

Before instituting treatment for puerperal infection, make a thorough physical examination of the patient, including a bimanual pelvic examination, with inspection of the perineum and a urinary analysis. In making a white blood-count, remember that there is normally a leukocytosis during pregnancy and the puerperium.

NON-OPERATIVE TREATMENT OF AN UNCOMPLICATED CASE OF PUERPERAL INFECTION

1. The patient should have complete rest, physical and mental.

2. A well-ventilated room should be selected in which there is plenty of sunshine.

3. Drainage should be favored by the Fowler position.

4. The hyperpyrexia should be controlled by cold sponging and an ice-bag on the head. In the case of a local pelvic inflammation, an ice-bag should be applied over the affected area. Elimination is an important factor and should be favored by both the bowels and the kidneys. The drop method of introducing normal saline solution into the rectum is desirable, as it saves the stomach, allays thirst and favors elimination by the kidneys.

5. As it requires five days to make an autogenous vaccine, first a serum or antitoxin should be administered to be followed by a reliable stock vaccine if the blood-count is favorable and there is an indication that the patient lacks sufficient reaction to combat the infection.

6. The stomach should be carefully guarded. All useless medication, whisky, quinin, etc., should be avoided, and the stomach practically reserved for nourishment only. Feed the patient carefully, at regular intervals. Discontinue breast-nursing unless the mental effect is too depressing in the mother's weakened condition.

OPERATIVE TREATMENT

This is positively limited to absolute indication. Uterine curettage is to be recommended only for a hemorrhage, which indicates that there is a foreign body in the uterus. When this procedure is decided on, the patient should be put under scopolamin and morphin, or a gas anesthetic, and with careful aseptic preparation, the operator wearing rubber gloves, the cavity of the uterus is explored and carefully cleaned out with gauze wrapped around the finger. I clean out the uterus if any of the placenta has been left after delivery. The consensus of opinion is that the uterus should be left alone in the event of the retention of the membranes. The objections to the indiscriminate curettage with the sharp curet or anything that will produce much traumatism is that there will be a breaking down of protective membrane with the liability of a dangerous amount of toxin or bacteria into the blood-stream.

Should a pelvic abscess develop, the indications are for an extraperitoneal drainage, preferably by the vaginal route, and under gas or scopolamin and morphin as an anesthetic.

Conservative surgery is the watchword of the advanced gynecologist. Palliative measures should always be tried before a radical operation is considered. In the lying-in period, pyosalpinx demands the same procedure as would be indicated otherwise. A radical operation must not be attempted until pyosalpinx becomes chronic. This is determined by a normal temperature and a low leukocyte count. The operative procedure in acute pyosalpinx should not exceed vaginal drainage except in rare instances.

In those unfortunate cases of uterine multiple abscess there is authority for considering the necessity of removing the uterus, but in considering the extirpation of this organ in puerperal sepsis, I agree with J. von Veit of Halle, Germany. After weighing his own and his contemporaries' results, he believes that in those cases in which the puerperal sepsis has become alarmingly gen-

eral and the blood is swarming with streptococci, the removal of the uterus is decidedly a doubtful procedure. When there are few streptococci in the blood, the patient will recover without a hysterectomy. When the streptococci are confined to the lochia, the operation is contraindicated.

In the event of stitches having been placed in the perineum, they should be removed if there is any redness indicating a local infection.

CONCLUSION

In closing, I earnestly desire to emphasize the necessity of resisting the temptation to give vaginal and uterine douches. The discharge, if any, should not be washed away with an antiseptic, as such a procedure inhibits the antiseptic action of the normal secretions and prevents the phagocytic action of the white blood-cells on the bacteria. In no disease which confronts us are we so tempted to resort to some active measure, and in no other disease has our patient's reserve force and resistance such need of conservation.

31 North State Street.

CONSERVATIVE TREATMENT OF SOME AURAL AND NASAL CONDITIONS BY HOT AIR AND IODOFORM

A SIMPLE AND PRACTICAL METHOD

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MINNEAPOLIS

The unsatisfactory, not to say dangerous results of much of the nasal and nasal-sinus surgery of radical character which has prevailed during the past few years are now being recognized more generally, and conservative methods of treatment are being developed. Such agencies as negative pressure and hot dry air have been somewhat extensively used and praised; but Jonathan Wright[1] questions the therapeutic value of the former in sinus disease, and the dry hot-air treatment of ear and nasal suppurations has failed to become popular largely because of the inconvenience and unreliability of the available means of its application. During the past year I have made rather extensive use of hot air and nascent iodin, following the publication of a paper by Dr. C. J. Koenig[2] of Paris.

Complicated and expensive apparatus is wholly unnecessary. My latest and simplest heater consists of section of brass gas-tubing, 3 inches long, one end of which screws onto the burner extremity of a two-jointed gas bracket. The latter is attached to the compressed-air service-pipes by means of curved sections of similar brass tubing in such way that a 10-cent gas-heater slipped over the burner of a two-jointed gas bracket (the gas and compressed-air service-pipes being in close proximity) can be swung under the curved brass tubing. To the distal end of the small piece of tubing is soldered a conical reducer which will fit either a by-pass compressed-air exhaust or a soft rubber tube for conducting the hot air into the nose or throat or ear. If it be desired to use any form of powder, the heater can be unscrewed and the medicament introduced, absorbent cotton first being placed in the small end to guard against its sudden exit.

For convenience I have another heater which, instead of being screwed to the compressed-air bracket, screws lightly into a small iron gas-cap to which is clamped a wooden handle. The gas-cap is perforated by an opening through which it may be connected with a similarly arranged compressed-air bracket at my operating-chair. A pressure of air sufficient for effective negative pressure is so destructive of rubber tubing that the metal tubing is a great relief. The heater as described can be held by the handle over the Argand or other gas-light, and in half a minute or less acquire sufficient heat to vaporize iodoform. A politzer or atomizer-bulb or even a mouth-tube will enable the physician to force the vapor into ear or nose, if not provided with compressed air. For use away from the office when a continuous stream of hot air was desired, I have connected the little heater with a coil of brass tubing (easily made from a few feet of ⅛-inch tubing) and a bicycle pump. A kerosene lamp, if nothing better, as a source of heat can be found in almost any house. Such an apparatus is dependable, controllable and efficient as well as inexpensive.

REPORT OF CASES

CASE 1.—Mrs. F., aged 72, a sufferer for many years from deafness of the left ear and nasal sinus disease, was operated on in April, 1912, for the removal of caries of the superior mastoid cells, a recurrence following a Heath operation of the year before. In spite of persistent treatment a sinus extending from the attic to a point high up in the greatly enlarged external canal was present the middle of August, with granulations in the tympanum and considerable purulent discharge. There were also at times shooting pains around the ear and side of the head.

Notwithstanding that the hot air was not well tolerated, because of making this patient dizzy, a few days' use with sufficient heat to vaporize iodoform caused the sinus to close and the discharge to disappear almost entirely. Not only has continued treatment removed the granulations and dried the discharge in the tympanum, but the heated air and iodoform passing through the eustachian tube have markedly improved the nasal conditions.

CASE 2.—Miss H., aged 24, of delicate physique, had had chronic nasal discharge for years and occasional foul discharge from the right ear. The right septum was in contact with the turbinal bodies by a sharp angular deflection, and the anterior end of the left inferior turbinal polypoid and both nares were bathed in pus. October 15 the polypoid growth was removed. On the 18th my attention was called to the foul discharge of the right ear, the membrana tympani of which had a small central perforation. The ear was cleansed and a prolonged application made of hot air and nascent iodin, following negative pressure to the nares. The ear was dry and clean on the 20th and has remained so. October 24th both ears heard the watch at 4 feet and ten days later at 15 feet. There have been no nasal symptoms since.

CASE 3.—Following the interesting review[3] of the work of Rendu in diphtheria, I had the opportunity in a member of my own family to try the effect of the hot air in clearing up the throat during the prolonged persistence of the positive culture after a mild diphtheria. The only noticeable result was the non-appearance of the various bacilli which usually accompany the staphylococci as the diphtheria bacilli disappear.

CASE 4.—L. K., aged 30, who had had nasal diphtheria just two years before, presented himself March 16, with complaint that he had had pain in the right fronto-ethmoidal region for three weeks and the past week a profuse discharge. I aspirated 2 drams of thick yellow pus and made a prolonged application of hot air. The blood-serum culture was almost

1. Wright, Jonathan: Laryngoscope, February, 1913.
2. Koenig, C. J.: Iodin Fumigation, New York Med. Jour., March 2, 1912; abstr., THE JOURNAL A. M. A., March 23, 1912, p. 896.
3. Hot-Air Treatment for Diphtheria, Current Comments, THE JOURNAL A. M. A., Aug. 3, 1912, p. 376. Rendu, R.: Treatment of Diphtheria with Hot Air, Lyon méd., Jan. 12, 1913, abstr., THE JOURNAL A. M. A., March 1, 1913, p. 701.

exclusively a polar-staining bacillus. One week later at his next visit the culture showed only staphylococci.

A considerable number of sinus cases have been treated with very satisfactory results. Some patients have apparently been cured on whom the operations done were very conservative and in whom the negative pressure, hot air and iodoform were manifestly of the greatest benefit.

CASE 5.—Sophie W., aged 22, has been under my care at times for seven years, suffering from chronic ozena, suppuration of both antra and left ethmoid, and in 1912 of both ears. In June of that year there was a sharp attack of facial erysipelas beginning on the right at the root of the nose, and crossing and involving the greater part of the left brow and cheek, evidently an infection extending from the nares. There was no evidence of disease at this time of any sinuses except of the left antrum and sphenoid. Both ostia were freely patulous. The use of the air douche and vaporized iodoform directly to the sinus through the catheter brought about the disappearance of the morning crusts, though slight occasional discharge was still present at last accounts.

CASE 6.—B., aged 21, has suffered for years from pansinusitis, and Sept. 1, 1912, was having profuse discharge from right antrum, the ostium of which was surrounded by swollen and degenerated tissues. The tissues were removed and the air douche applied directly to the sinus, followed by the hot air and iodoform. A few treatments resulted in the practical disappearance of discharge from both antra. A month later a few treatments with negative pressure and nascent iodin supplemented by a course of autovaccine (*Staphylococcus albus*) brought about a remarkable improvement of the condition of the other sinuses.

Two other patients were apparently greatly benefited by the addition of an autovaccine, the one a *Staphylococcus albus* and the other a polar-staining bacillus.

CONCLUSIONS

Patients complaining of sore throat and earache from acute pharyngitis have been relieved by a single application of the hot air and nascent iodin and have reported the following day that there had been no return of their discomfort. Altogether there is so much advantage and so little of unpleasantness to the patient or inconvenience to the doctor, that these conservative methods of treatment ought to commend themselves to the careful physician.[4]

The results of these hot-air and nascent iodin treatments seem to be specifically the destruction of the less resistant bacteria and the drying and shrinking of the tissues with the secondary increase of cellular activity and removal of inflammatory products which interfere with drainage.

524 Syndicate Building.

4. The violet fumes of vaporized iodoform may be used in the ear but are too irritating for the air passages. For the nose and throat the iodoform heated to a point just short of decomposition is wholly unirritating, while the Koenig mixture of iodin, camphor and menthol crystals in talcum powder is decidedly irritating.

Creed of Social Hygiene.—The sex problem, the venereal peril and the social evil are questions as much concerned in the future welfare of the race as the intellectual enlightenment of the public schools or the moral precepts heralded from the average pulpit. I am in favor of the prohibition of consanguineous marriages; the presentation of a physician's certificate of normal soundness of mind and freedom from incurable and communicable diseases prior to marriage; the registration of all persons afflicted with any form of venereal disease and of prostitutes; the sterilization by vasectomy or otherwise of all confirmed criminals, moral degenerates and sexual perverts, and the castration of all confirmed rapists. —Clinton E. Spicer, M.D., in North Dakota State Med. Assn.

THE SERUM DIAGNOSIS OF PREGNANCY*

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Though normal pregnancy is usually diagnosed with fair exactitude by the patient herself, the early diagnosis of the condition is often open to many fallacies by the trained obstetrician, while even as the months pass by some cases remain obscure. The desirability of an early diagnosis in all cases, and the imperative necessity in some is only too obvious.

To these and other ends many signs and symptoms have been described relative to the probability of pregnancy, but until late in gestation no pathognomonic evidence has been adduced by these means. To satisfy this deficiency, of late years serologic methods have been applied.

The antitrypsin test has been utilized in this connection by Franz and Jarish,[1] E. Rosenthal,[2] Jochmann[3] and others with the fairly uniform result that in pregnancy, beginning practically at the time of implantation, the antitryptic index is materially increased. This test is, however, far from specific and, as one investigator pertinently remarks, if it is possible to exclude carcinoma, exophthalmic goiter, nephritis, the infectious fevers, some gynecologic affections, the puerperal state and recent abortion—then a considerable increase in the antitryptic index speaks for pregnancy.

Fieux and Mauriac,[4] who applied a complement fixation test to the condition, a placental extract of an early therapeutic abortion being used as antigen, claim that this is a very successful means of determining an early pregnancy. Though their work has had confirmation,[5] syphilis must be excluded in all cases and moreover, the method is only applicable to pregnancy before the fourth month of gestation. The technic of any fixation test, and in particular when the necessary antigen is so difficult to procure, can only be done in well equipped laboratories with a large clinical service available.

Since the introduction of the miostagmin reaction by Ascoli[6] this method has also been applied to the diagnosis of pregnancy by Julchiero,[7] while Mosbacher[8] has employed another physicochemical measure, the epiphanin reaction, in the same condition. The unusual technical skill required for the performance of both these tests is a serious drawback to their frequent application, the apparatus is expensive, and the results require further confirmation.

Recently Abderhalden[9] has promulgated the theory that free chorionic villi of an implanted ovum induce in the maternal organism a reaction which produces digesting ferments for placental tissue. He has obtained this proteolytic enzyme from the serum of impregnated females of various species, has placed it in contact with placental tissue of the same species and has been able

* Delivered before the One Hundred and Fifteenth Annual Meeting of the Medical and Chirurgical Faculty of Maryland, April 23, 1913.

1. Franz and Jarish: Wien. klin. Wchnschr., xxv, No. 39, 1912.
2. Rosenthal: Ztschr. f. klin. Med., Berlin, 1911, lxxii, No. 6.
3. Jochmann: Arch. f. Gynäk., Berlin, 1910, lxxxix, No. 3.
4. Fieux and Mauriac: Ann. de gynéc. et d'obst., February and May, 1912; Jour. de méd. de Bordeaux, March 24, 1912.
5. Quintella: Ann. de gynéc. et d'obst., July, 1912, Vaysière and others.
6. Ascoli: München. med. Wchnschr., 1910, lvii, 62.
7. Julchiero: Wien. klin. Wchnschr., 1912, xxv, No. 43.
8. Deutsch. med. Wchnschr., 1911, xxxvii, No. 22.
9. Abderhalden: Schutzfermente des tierischen Organismus, Springer, J., Berlin, 1912; München. med. Wchnschr., 1912, lix, Nos. 24 and 36; Deutsch. med. Wchnschr., 1912, xxxviii, No. 46.

to detect digestive changes in that tissue. Moreover, the performance of the test is simplicity itself.

A fresh placenta is obtained, finely ground in a meat-chopper, washed entirely free of blood and then thrown into about a quart of vigorously boiling water to which it is preferable to add a few drops of acetic acid. After five minutes' boiling, the water is drained off and the tissue boiled in a second quart of water for a period of five minutes. This process is repeated as often as is necessary to render the water at the end of five minutes' boiling free from the biuret reaction or a modification of it. Thereafter, the tissue is either drained and thoroughly dried in a desiccator or stored away as a housewife does preserves, except that to further prevent putrefactive changes, a layer of toluene should be added.

The apparatus is meagre, consisting of the following:

1. Dialyzers impermeable to serum albumin and to the intact placental protein but permeable to its cleavage products. Those of Schleicher & Schüll No. 579, are very convenient.

2. Glass containers for the dialyzers, whose inside diameter is not more than 4 mm. greater than the outside diameter of the dialyzers (the ordinary urinometer cylinder serves well).

3. A few capillary pipets, test-tubes and a Bunsen burner.

4. An apparatus for procuring at least 6 c.c. of sterile blood from a vein of the patient.

5. Reagents for doing the biuret test.

The biuret test is performed by adding in a test-tube about an equal volume of a strong caustic soda solution to the fluid tested and layering this mixture with a weak (about 0.25 per cent.) solution of copper sulphate. At the line of juncture, if biuret or allied bodies are present, a violet-purplish ring of demarcation occurs. A more delicate method for the detection of the decomposition products of the placenta is by means of a reagent, triketohydrindenhydrate or ninhydrin. Of a 1 per cent. solution of this 0.2 c.c. are added to 10 c.c. of the test fluid. This is then boiled for one minute. A lavender to deep purplish-blue indicates the presence of the suspected substances, a colorless or slight yellowish tint, its absence.

The performance of a test is likewise simple. The blood is obtained from the patient by venipuncture and allowed to separate or is centrifugalized. The clear, fresh (not over six hours old) and hemoglobin-free serum is pipetted off and 1.5 c.c. of it placed in a dialyzer which has become thoroughly saturated with water. To it is added about 1 gm. of placental tissue. The outside of the dialyzer is then thoroughly rinsed in tap-water. Twenty c.c. of distilled water are placed in the container and the charged dialyzer partially submerged in it. A layer of toluene is added to both dialyzer and container and the whole incubated for from twelve to sixteen hours. As a control, serum alone or serum with tissue (the serum in this case being heated for half an hour at 56 C. [132.8 F.] to destroy any enzyme present), is placed in another dialyzer and incubated as in the other instance. This controls a possible error due to the permeability of substances other than the placental digestion products, which yield a biuret reaction.

At the end of the time of incubation, 10 c.c. of the solution in the container are tested for biuret. If positive, it indicates that the complex placental protein molecule has been broken down to simpler molecules, which, passing through the dialyzer, have imparted to the water on the other side of the membrane—the dialysate—a biuret reaction.

If putrefactive changes can be excluded it indicates that the tissue was digested by an enzyme of the patient's serum, which, so far as investigations have been able to determine, is present only in the gravid state, the puerperium, and in cases of retained membranes. If a negative test is obtained it is strong if not conclusive evidence that placental tissue is not or has not recently been in the patient's system. Some thirty or more of my own cases tested by this method have been quite in accord with the strict specificity of this test when putrefactive changes, fresh serum, and the proper selection of dialyzers have been carefully controlled.

1902 Eastern Avenue.

THE EXPERIMENTAL PRODUCTION OF PELLAGRA IN THE MONKEY

BY A BERKEFELD FILTRATE DERIVED FROM HUMAN LESIONS—A PRELIMINARY NOTE *

WILLIAM H. HARRIS, M.D.
NEW ORLEANS

The inability to produce satisfactorily pellagra in animals by means of various foodstuffs (spoiled maize and other cereals) which are considered by many observers to be in some manner responsible for the production of the disease, led to investigations based on the hypothesis that pellagra is caused by a living micro-organism and not by a chemical intoxicant. Therefore, it seemed logical that the causal agent would be contained in one or more of the various tissues affected, and by utilizing these the disease could be reproduced in a susceptible animal. It was considered inadvisable to attempt injections of the whole tissue emulsions because of the heavy bacterial flora of the intestinal tract, the contaminations of the skin and the probable secondary infection of the patient dead of pellagra. These considerations together with the view that the disease in man might be due to a filterable virus occasioned the employment of filtrates from the various organs. For this purpose the skin, alimentary tract and more especially the brain and cord, since many of the characteristic symptoms of pellagra indicate disorders of this system, were filtered and utilized for animal injection.

In the spring of 1910 experiments with a Berkefeld filtrate of the infected human tissues were carried out on the monkey. These materials were selected from the fresh necropsy of a case of undoubted pellagra which presented clinically a typical picture of the disease; namely, extensive skin lesions, stomatitis, diarrhea and the various nervous manifestations. The skin lesions involved the hands, face, legs and scrotum, and were sharply defined, being of a distinct black color, dry, elevated and scaly. A complete necropsy was held within two hours after death, and the only lesions found in the gross and microscopically were those present in fatal pellagra; no concomitant disease was present. The tissues of the different parts of the central nervous system, especially the cord, portions of the skin lesions and of the alimentary tract including the nasopharyngeal mucous membrane were removed. These were mixed with equal amounts of normal saline solution, ground together in a mortar and allowed to stand in the ice-chest over night. After coarse filtration the juice was passed through a Berkefeld filter, letter N.

* From the Laboratories of Pathology and Bacteriology, Tulane University.

As the primary aim was to infect an animal with the disease, the filtrate from the tissue mixture was injected subcutaneously, intravenously and intracranially in large quantities into a full-grown, normal male *Macacus rhesus* (Monkey 1). After showing immediate pressure symptoms the animal recovered from the operation and remained apparently normal for many months, when he developed irregular dark patches on the face, forearms, hands, back and sides of the body. He gradually grew thin and weak and finally died with all the signs of pellagra. The length of time for the development of the disease in this animal occasioned considerable skepticism of the results and the experiment was not repeated until a similar typical fatal human case was

Fig. 1.—Monkey 2, showing lesions of face.

again available. The necropsy protocol of this animal is given below.

On Dec. 2, 1912, a full-grown healthy *Macacus rhesus* (Monkey 2) was inoculated with large quantities of a filtrate from parts similar to those previously used, which were obtained from a fatal case of recurrent pellagra that showed on post-mortem examination no evidences of other disease. The injections were given intracranially, intravenously and subcutaneously and, aside from some immediate pressure symptoms, the animal remained apparently normal for a period of two months.

Another distinct case of fatal pellagra presented itself in February which revealed at necropsy only the lesions consistent with pellagra. The small intestine showed extensive inflammation of the mucosa. Two separate filtrates for animal inoculation were prepared from the tissues of this subject: one from the brain and cord and another from the intestinal and skin lesions. The nasopharyngeal mucous membrane was not used and only a very small amount of skin. The animal which had previously received injections of pellagra filtrate (Monkey 2) was given a second injection of equal parts of these two filtrates mixed together. Another animal of the rhesus type (Monkey 3) was injected intravenously and intracranially with the filtrate prepared from the brain and cord. These two animals were inoculated on Feb. 12, 1913.

Early in May, Monkey 2, which had received two inoculations, one in December and the other in February, showed irregular patches of a copper or dusky red color about the face. On May 10 these patches were raised, considerably darkened, very dry and more clearly defined, being located across the nose and spreading in wing-like manner on either side under the eye and over the cheek. The shape of the lesion in general was somewhat that of a butterfly. At this time copper-colored lesions had appeared on the summit of the concha of both ears and at the external canthus of the eyes and also over the backs of the hands. There was a distinct symmetry in the bilateral arrangement and shape of these lesions. Subsequently the animal has become melancholic, emaciated and weakened; he sits about the cage (dimensions 8 by 10 by 15 feet) or slowly climbs instead of jumping about as previously. The lesions apparently itch since he scratches them frequently and often is seen picking off the scaly plaques. His appetite is poor. A slight diarrhea has developed and he shows considerable salivation, slobbering freely; the tip of the tongue is granular in appearance and the papillae are considerably enlarged. On May 28 the skin lesions have become almost black in color and are easily visible at a considerable distance; when viewed closely evidences of cracking and scaling are seen. At present date (June 1) the lesions look about the same except that there are deeper pigmented areas within the large plaques, producing a somewhat mosaic appearance. Along the bridge of the nose some of the scaly plaques have fallen off, one of which measures approximately 0.5 cm. The hands over the dorsal surface of the fingers and over the wrists posteriorly now present distinct dry black lesions and show, especially on the fingers, distinct scaling. The hairs over the phalanges have disappeared (see photographs). The animal is growing progressively weaker and thinner and the signs and symptoms are becoming more marked.

Monkey 3 is still in good condition and quite lively but presents about the face a few irregular, rust-colored macules, quite like the early lesions of Monkey 2.

Though the clinical observations on Monkey 1 are not so detailed as desired since the period of incubation was so long

Fig. 2.—Monkey 2, showing lesions of face and hands

that routine examinations had been discontinued, the necropsy findings are of particular interest. The animal is extremely emaciated and presents large irregular pigmented plaques on the face, forearms and back. These are in some areas of a chocolate color while other areas show a gray scaly surface; they vary in size from approximately 2 by 3 by 3.5 cm. to 4 by 6 by 7 cm. and in other places they have merged together to form more extensive patches. The lungs and the heart are normal and aside from some inflammation of the small intestine no other gross lesions are present. Microscopically, the most typical lesion is found in the sections of the skin, which show extensive hyperkeratoses of the

epidermis, marked increase in the depth of the papillae and abundant pigmentation ir the deeper portions of the corium where many chromatophores have wandered into the deeper strata. The cutaneous lesions are identical with the microscopic picture of the skin in human pellagra.

These experiments would indicate that pellagra may be transmitted to the monkey *(Macacus rhesus)* by means of a Berkefeld filtrate derived from the tissue of the human subject; at least, the animals develop all the essential clinical signs and symptoms together with the pathologic picture discerned in the disease in man. Furthermore, they suggest that the etiology of pellagra is a filterable virus or a micro-organism capable of passing through the pores of certain Berkefeld filters. The details of this work and the further experiments which have been undertaken with a view of determining the nature of this filtrate and other phases of the problem will appear in a subsequent publication.

For many suggestions during the progress of this work I wish to extend thanks to Prof. C. W. Duval in whose laboratory the work was carried out.

SPECIFIC AND EXTREME HYPERLEUKOCYTOSIS FOLLOWING THE INJECTION OF BACILLUS TYPHOSUS IN IMMUNIZED RABBITS *

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AND
EDITH J. CLAYPOLE, M.D.
BERKELEY, CAL.

In a previous note[1] dealing with induced variations in the agglutinability of the typhoid bacillus, we have indicated a method for testing the protection of animals that have been immunized by various preparations of the typhoid bacillus. This method consists in employing the typhoid-carrier state in rabbits, which, under proper conditions, may be produced regularly in control animals. This carrier state, which is usually followed by the death of the animal in from five to twenty days, does not occur in animals that have been properly immunized against the typhoid bacillus. In a further study of the mechanism by which the injected bacteria are disposed of in the immunized animal, an apparently unrecognized and significant phenomenon has been observed which further emphasizes the importance of polymorphonuclear leukocytes in disposing of bacteria.

The preeminent importance of leukocytes of the polymorphonuclear type in taking care of bacterial infections has been amply determined by the work of Metchnikoff and his followers. We know that these cells dispose of bacteria either through direct phagocytosis or indirectly following the action of tropic substances in serum on the bacteria. Further evidence that indicates the importance of leukocytes is their response to the injection of any foreign protein substance, particularly to bacteria, by an increase in number (hyperleukocytosis). So far as we are able to determine, no distinct evidence has been brought forward that hyperleukocytosis occurs to any greater extent in specifically immunized than in normal animals.

We find that the injection of living typhoid bacilli, grown on rabbit-blood medium, directly into the circulation of normal rabbits produces first a hypoleukocytosis, which may fall to from one-fourth to one-eighth of the original count, and which is followed by a hyperleukocytosis reaching its maximum in from sixteen to twenty-eight hours. The average maximum in five observations in which the maximum was almost certainly obtained is 46,000 leukocytes to the cubic millimeter (lowest count 34,000; highest count 56,000). This fluctuation is due entirely to variations in polymorphonuclear leukocytes, which disappear almost entirely from the peripheral circulation during the stage of hypoleukocytosis.

In typhoid-immunized animals the response is enormously increased over that obtained in normal animals. The hypoleukocytosis occurs somewhat earlier than in the normal animals (from about one and one-half to three hours), although it does not reach any remarkably lower grade. The count has returned to the normal usually in about six hours, whereas it does not return in the normal animal until about fourteen hours. The maximum in immunized animals, which is also reached earlier than in normal animals, was found to vary from 80,000 to 274,000, with an average in five cases of 138,000. Owing to the fact that observations were not taken at sufficiently frequent intervals, there is no certainty in many of these cases that the crest of the curve of hyperleukocytosis was actually obtained. The figures are, however, perfectly comparable with those obtained in normal animals and show on the average a leukocytosis that is three times as great. It is further to be noted that this response of leukocytes in typhoid-immunized animals is specific for the typhoid bacillus, as such animals are found to respond no better than normal animals to injections of the *Micrococcus aureus*.

It is evident, therefore, from this observation that the activity of polymorphonuclear leukocytes in immunized animals may be not only qualitatively but quantitatively increased. We are engaged in extending these observations to other types of immunity.

2347 Prospect Street—2826 Garber Street.

* From the Hearst Laboratory of Pathology and Bacteriology, University of California.

1 Cay, Frederick P., and Claypole, Edith J.: Induced Variations in the Agglutinability of Bacillus Typhosus, THE JOURNAL A. M. A., April 12, 1913, p. 1141.

EPIDEMIC OF TYPHOID DUE TO MILK

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Superintendent, Bacteriologic Department
AND
WILL McABEE
Drug Chemist, Chemical Department, Laboratory of Hygiene, Indiana State Board of Health
INDIANAPOLIS

Indiana Harbor, a city of 10,000 people, in Lake County, Indiana, in common with the other cities about the southern end of Lake Michigan, is accustomed to have a rather high death-rate from typhoid during August, September, October and November. During the month of October, 1912, however, the number of cases was unusually high.

November 8, 1912, we visited Indiana Harbor. Thirty-two cases of typhoid had been reported to the town health-officer. Of the patients twelve were men and twenty were women and children. The water-supply for Indiana Harbor is taken from the same source and pumped through the same mains as that for East Chicago. There was not an unusual number of cases of typhoid in East Chicago. This fact, along with the age

and sex of the sick, practically eliminated the water as the source of infection. The homes of those sick were in that part of town where the sanitary conditions were of the best. Secondary cases in the same family were infrequent because most of the people employed trained nurses.

A careful tabulation of the cases showed that all the patients took milk from a milkman who obtained his supply from four farms 40 miles away.

Investigation of these four farms showed three to be in good condition. On the fourth farm there were suspicious conditions. The family consisted of a dairyman, his wife and nine children. The eldest son, who had been working away from home, returned in the early part of August with what the doctor called "walking typhoid." About August 10 the mother, who had been nursing him, went to bed with "bilious fever." She was able to be out of bed about October 10. At this time her husband began to feel ill. He did not go to bed, but "just took a little brandy every once in a while and kept going." The husband, during his wife's illness, nursed her and did the milking with the help of a 14-year-old boy. The attending physician did not diagnose any of these cases as typhoid; blood taken November 13, however, gave the following results: Mr. X., Jr., suggestive; Mrs. X., positive; Mr. X., Sr., positive.

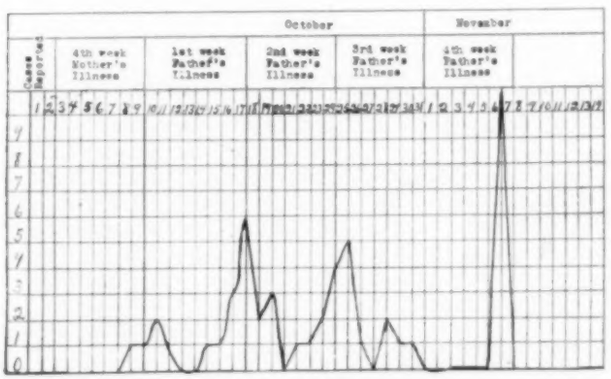

Chart showing approximate date of infection in fifty-four cases reported.

Up to Dec. 1, 1912, fifty-four cases had been reported to the local health officer. The chart shows the approximate date of infection in these cases. The date of infection is obtained by counting back fifteen days from the time each case was reported. Under the present circumstance this time is rather short, we believe. It will be seen from the chart that most of the infections occurred during the illness of Mr. X., Sr., and the last week of the illness of his wife. During the last week she assisted her husband to care for the milk.

After November 10 no milk was sold from this farm that was not thoroughly pasteurized. Only one or two new cases were reported during December and these were, it is more than likely, secondary cases.

The Obligation Resting on the Physician.—It seems to me that every man who has had the opportunity to benefit by a college or university education should feel that he has thereby been put under bonds, as it were. . . . Modern medical education is the most expensive of university, perhaps of any large scale, education. If the [non-medical] undergraduate costs the college twice as much as he pays, the medical student costs probably five times as much, a portion of hospital expense being fairly chargeable to his needs.—F. C. Shattuck, M.D., in *Boston Med. and Surg. Jour.*

OPERATING-TABLE FOR RHINOLOGISTS

CORYDON G. DWIGHT, M.D., MADISON, WIS.

I have long felt the need of a surgical table which would be more convenient and adaptable than the ordinary operating-table, which is at best an awkward piece of furniture for eye, ear, nose and throat specialists. Such long and tedious operations as submucous resections of the septum on the ordinary operating-table are very tiresome to the surgeon. He is compelled to stoop and to lean over the edge of a wide table. To overcome this difficulty I have devised the table shown in the illustrations, a description of which is as follows: height 33½ inches, length 70 inches, width of top 20 inches. As will be noted in the illustrations, the framework of the table and the portion of the top coming in contact with the patient's back are hollowed out on each side to permit the surgeon to take a position more directly in front of the field of operation. By means of two worm screws and gears, regulated by a spoked wheel, the top of the table can be quickly elevated 10 inches, thus allowing the surgeon to stand erect while working. The head-rest extends across the entire width of the table and its edge is shaped to fit the back of the patient's neck, giving the greatest degree of comfort. It is raised or

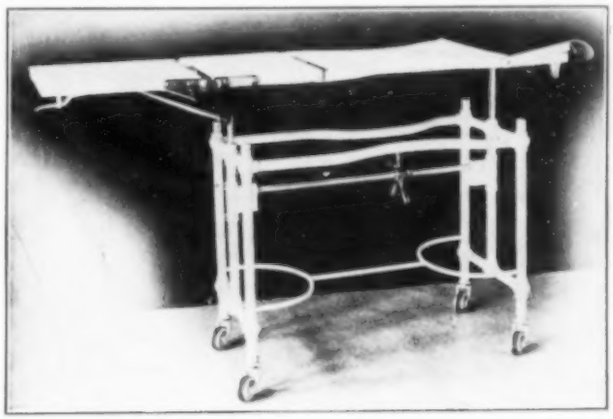

Fig. 1.—Rhinologists' table. Note the hollowing out of the framework and of the back section of the table together with the worm screw arrangement for raising the top of the table above its normal height.

Fig. 2.—Rhinologists' table showing manner of adapting it to the varied positions required in eye, ear, nose and throat work.

lowered quickly by a hand-wheel operating a screw with a sliding nut. When the top of the table is at its normal height, it may be used for eye operations, dressings, etc. The table is mounted on four rubber-tired casters, two of which are equipped with brakes operated by the foot, by means of which the table can be made stationary if desired. The other mechanical features of the table will be apparent from an examination of the illustrations. Its flexibility and its adaptable height make it serviceable in the entire field of eye, ear, nose and throat work.

215 Pioneer Block.

CASE OF URETHRAL CALCULUS, PROSTATIC DIVISION*

D. LEE HIRSCHLER, M.D., SAN FRANCISCO

Urologic literature contains numerous references to urethral calculi, over one hundred reports being recorded, from many of which important lessons can be learned. The most frequent variety of urethral calculus is that of the single impacted stone, of vesical origin, caught behind one of the physiologic narrowings of the urethra or behind a stricture. In the case here reported it is evident that had the strictured area

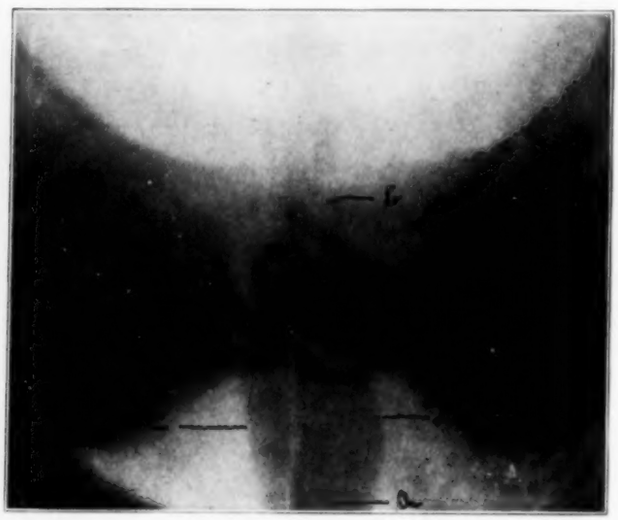

Fig. 1.—Roentgenogram showing calculus in urethra extending from *a* to *b* and from *c* to *d*.

been kept dilated for some time after the prostatectomy, the calculus would not have formed.

The purpose in reporting this case is to demonstrate a roentgenogram taken of the calculus *in situ*.

Patient.—Charles A., aged 61, single, civil engineer, born in Massachusetts, was admitted Jan. 10, 1913. His father died at advanced age, his mother in childbirth. There was no history of cancer or tuberculosis. The patient denied lues, and had never been ill except as will be described. He was addicted to morphin for five years until "cured" one year ago. Emaciation had been recent and gradual. The patient used tobacco moderately, but never alcohol. Appetite and digestion good; bowels constipated.

External urethrotomy for stricture was performed in 1887, internal urethrotomy for stricture in 1892, and perineal section for "enlarged and diseased prostate" in 1906. Following last operation patient had been discharging half of the urine through perineal fistula. Patient was in good health until one year before admission, when he began to ache in region of perineal fistula. Ache was continuous, not influenced by urine passing through fistula or through penile urethra. Ache increased by sitting posture. Patient also described the "ache" as a "burning pain," and complained of a pain in penis, following course of urethra, griping in character, not influenced by urination and usually ceasing early in the day. The frequency of urination was from half an hour to two hours, day and night, and equal. Urine caused slight burning when passing through penile urethra and at times contained a few shreds of blood.

Examination.—General: Negative except for emaciation. Pulse regular, good volume, much sclerosis. Reflexes normal.

Local: In midline scar in perineum there is a fistula which does not admit any instrument except a very fine probe. Sound passed into penile urethra cannot be made to enter the bladder. By rectum there is a dense, extremely sensitive immovable mass which fills the prostatic region and extends forward to the bulbomembranous juncture. The rectal wall is not adherent to the mass. Both inguinal regions are free of enlarged lymph-nodes.

Urine: Acid; specific gravity 1.017, no albumin, no sugar. Microscopic examination showed numerous pus cells but no casts.

The x-ray plate was placed beneath the buttocks, with the patient flat on his back and the compression diaphragm just above the pubes at an angle of about 30 degrees. In the roentgenogram (Fig. 1) the calculus extends from *a* to *b* and *c* to *d*.

Operation.—Jan. 30, 1913, under general anesthesia, a median perineal incision was made through the scar, and the calculus (Fig. 2) was grasped with forceps and withdrawn,

Fig. 2.—Calculus weighing 13.21 gm.

followed by a gush of foul urine. The calculus extended from the bulbomembranous juncture anterior to within the vesical sphincter posterior, the large end (*a*) being anterior (penile). A dense stricture, anterior to site of calculus, was cut and a permanent catheter inserted through the penis into the bladder.

The weight of the calculus was 13.21 gm. Section showed it to consist of a homogeneous mass in layers, without any definite nucleus.

My sincere thanks are due to Dr. W. P. Willard for the privilege of reporting this case, to Dr. H. H. Markel for the roentgenography, and to Dr. A. W. Lee for the photographs of the roentgenogram and calculus.

DOUBLE VULSELLUM CERVIX FORCEPS

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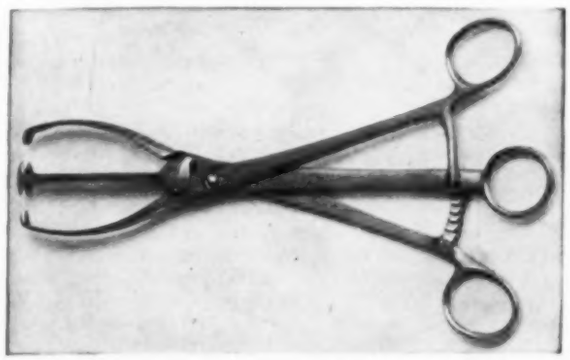
It has been my misfortune to have to repair lateral tears of the cervix of the uterus without proper assistance, and it seemed to me that an instrument should be devised which would be of assistance in approximating the edges of such a tear by drawing the lips down at the same tension, thus making it possible to sew them together while keeping their correct relation with each other. Two pair of tenacula are difficult to hold and require an extra pair of hands; therefore, I have designed an instrument for such use. After placing it on the cervix, one set of teeth gripping each lip, it is possible to hold it off to one side, and place the sutures with the other hand. I have found it particularly useful in a

* Read before the San Francisco County Medical Society, March 18, 1913.
* From the Urologic Service of the University of California San Francisco Hospital.

few cases where an immediate repair of a small tear in the cervix after delivery is essential.

The instrument itself can easily be understood by reference to the accompanying illustration. It is heavy enough to be strong, but not bulky. It is nine inches in length, and the space between the outside blade and the central shaft, when the instrument is closed, tapers from half an inch to a quarter of an inch. As is shown in the illustration, the three parts of this instrument are held together by screws, and in some ways are similar in mechanism to the various forms of stomach clamps. Each blade has its own rachet allowing the adjustment of one set of teeth at a time into each lip of the cervix.



Double vulsellum forceps, made by the E. H. Mahady Company, Boston.

In practice, I have found it easier to grasp the posterior lip first, and then approximate the anterior lip to it and grasp it in the same way.

657 Boylston Street.

ASCARIS LUMBRICOIDES AS A COMPLICATION OF A SURGICAL OPERATION

MARY D. ALLEN, M.D., HAMADAN, PERSIA

The physician who practices medicine in tropical or semi-tropical countries has constantly to bear in mind the omnipresence of intestinal parasites and especially the *Ascaris lumbricoides*.

In Persia it is almost always a safe assumption that every person, whether child or adult, harbors several if not scores of these parasites. It is in fact a custom among some of the more enlightened of the Persians to take a dose of santonin as a matter of routine every few months. A brief history of a gynecologic case in which these worms played a curious part may perhaps not be without interest to others.

Patient.—A Jewish girl, aged 16, married, was admitted to the hospital Nov. 4, 1912, complaining of abdominal pain. General health had been good up to a few months previously when she had a miscarriage at three months. Since that time she had had fever, pain in the lower abdomen, and throughout the time a marked diarrhea, worse at night, when she would have from seven to eight evacuations. Two or three months before admission I examined the patient, made diagnosis of right pyosalpinx and advised operation, to which she would not consent. She was put on a treatment of hot vaginal douches with an ice-bag to the abdomen. Her condition steadily grew worse. At last the patient and her family, fearing death, consented to the operation.

Physical Examination.—On admission: Temperature 100, pulse 120. Heart and thorax, negative. Abdomen distended and held very rigidly over the lower half. From a point a little above the umbilicus on the right side, sloping down to the middle of Poupart's ligament on the left, could be felt a line of marked resistance with great tenderness on pressure. There was apparently some sort of a mass filling up this portion of the abdomen. There was no discharge or external evidence of infection on vaginal examination. The cervix was small and quite freely movable. There was marked induration behind the uterus and in both fornices. Neither the fundus nor the appendages could be felt. White blood-count 15,400. On account of the history of diarrhea the stools were examined and found full of ascaris eggs. On that account 3 grains of santonin were given before the operation, but up to the time of operation no worms were passed.

Operation.—The abdomen was opened in the mid-line. Peritoneum was found markedly thickened and so firm that it resembled an aponeurosis. As soon as the peritoneum was opened a large quantity of foul-smelling pus escaped. About 2 liters (2 quarts) were evacuated and the abscess cavity explored. The uterus was at the bottom of the cavity, small, and adherent to the intestines. The right tube and ovary were tied up in a mass of adhesions to the right of the cavity. The left tube and ovary were not seen. No attempt was made to free adhesions. The cavity was irrigated with salt solution and the incision closed and drained above. A vaginal drain was not put in as it was feared that too many adhesions would be broken up in an attempt to get behind the uterus.

Postoperative History.—Second Day: Patient doing well, wound draining freely and looking well. Dressings changed.

Third Day: Patient given a water and glycerin enema, which was effectual. Ascaris worms passed with it. Dressings removed from wound and a large ascaris, perhaps 8 inches long, found lying across the wound under the dressings. Wound draining very freely; pus very foul but with no suggestion of a fecal odor.

Fourth Day: Water and glycerin enema again effectual, ten or more worms passing with it. One ascaris again found under the dressings and another in the abscess cavity when one of the drains was pulled out Still no suggestion of fecal odor to the pus.

Fifth Day: One ascaris found under dressings. An occasional sound heard as of gas bubbling through the wound but no fecal material in the pus.

Seventh Day: Two ascaris worms removed from the abscess cavity. Five grains santonin given with Epsom salts; two grains santonin passed through unchanged with stools. No worms with stools. At night a third worm was found in the cavity.

Eighth Day: Wound much cleaner in appearance and beginning to granulate up. No worms.

Ninth Day: Considerable pus but no worms.

Tenth Day: One worm found under dressings. No fecal matter.

Eleventh Day: Pus less.

Twelfth Day: Pus again increased; one small worm found in the incision.

Sixteenth Day: No more worms; still a great deal of drainage; wound slowly filling up.

Twenty-Second Day: Patient's temperature 102; complained of pain in right side of abdomen. No cause for the fever found.

Twenty-Sixth Day: Fever has gradually cleared up; pus, which was more abundant for a few days, has become less.

Twenty-Eighth Day: Patient goes home. Wound still draining profusely and large abscess cavity still present. Family unwilling that she should remain longer.

Four Weeks Later: Patient in same general condition. Since going home developed a cough and had a great deal of diarrhea. Wound not improved. Five grains santonin again given with calomel and castor oil. Patient completely prostrated by the treatment. For about a week, no worms appeared in stools; one appeared in the wound the day after the santonin.

Two Months After Operation: Wound still unhealed. Profuse purulent exudate present; granulation tissue very sluggish. Diarrhea better; cough very troublesome. Patient developing an extremely edematous and painful phlegmasia alba dolens of the left leg.

The patient died about two months after the operation.

Remarks.—At no time was there any evidence of a fecal fistula. There was no fecal odor to the pus nor, in spite of

frequent fluid stools, any fecal drainage through the incision. Naturally it would be supposed that the worms made their way into the abscess cavity from some portion of the intestinal tract, but why, if ten worms of the size of most of these made their way through the intestinal wall, had there been no escape of any other intestinal contents? This remains a mystery. The worms were most of them full-sized individuals varying from 5 to 9 inches in length and were all alive at the time of removal.

There seems to have been some relation between the doses of santonin and the appearance of the worms, the majority of them having appeared soon after administration of the drug. It would be interesting to know whether, if the santonin had never been given, the worms would have appeared or not.

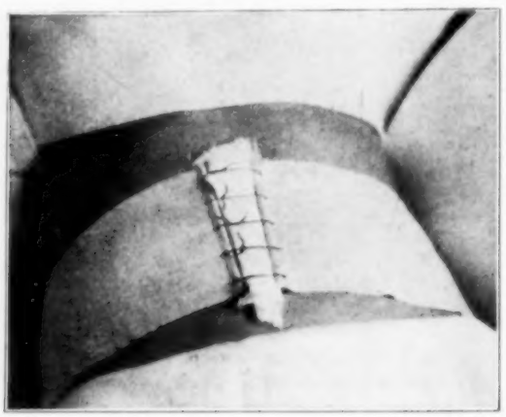
Whether the worms were responsible for the exceeding sluggishness of the wound or whether that was due to other causes is also a question. The pus was always more abundant on the days that the worms appeared and for several days afterward. Unfortunately, in Central Persia, there is no means of access to the literature on the subject, so I am unable to find out whether the case is a unique one or not.

It may be interesting to note, in connection with this case, an instance related by the father of this patient, who is a native physician. He tells of a patient of his whom he had tapped repeatedly for dropsy. On one such occasion, greatly to his surprise, when he inserted the trocar a roundworm came forth. Cases in which worms have been vomited, have appeared at the nose or gone through the eustachian tube into the ear are not uncommon in this country; and cases have been reported in which a worm has perforated the intestinal wall, causing peritonitis.

ADHESIVE SUPPORT FOR TENSION SUTURES

C. L. HEALD, M.D., CEDAR RAPIDS, IOWA

When placed under tension sutures are apt to cut their way through the tissues, thus diminishing their support of the wound.



Parallel glass tubes, covered with adhesive plaster, placed over incision to relieve suture tension.

In closing wounds in which there is likely to be much tension, as from tympanites, vomiting or when the patient is to be got up early after operation, I have used the following simple method with satisfaction:

Two pieces of ¼-inch glass tubing are filed and broken off the length of the wound. Two pieces of zinc oxid adhesive plaster are cut as wide as the length of the rods, and as long as necessary to give firm support. One end of each piece of adhesive plaster is rolled once around a glass rod, adhesive surface in, and overlapped on itself ¼ inch.

After the wound has been closed with sutures in the usual way, with silkworm-gut tension sutures inserted but not tied, the adhesives are applied, the rods coming just within the line of tension sutures on each side of the wound. Close to the rods, with knife or scissors, are cut small slits, through which the ends of the sutures are passed, drawn taut, and tied over a strip of gauze laid on the wound. Additional support may be obtained by passing tapes through other slits and around the rods, tying the ends together over the gauze. The usual dressings are then applied.

The sides of the wound are firmly and evenly supported, and the wound is placed at rest, a condition favoring prompt healing with minimum scar formation and liability of hernia.

THE RADICAL CURE OF AN UNUSUAL TYPE OF HEADACHE

T. J. ORBISON, M.D., LOS ANGELES

The following clinical record is presented as an example of a rarely diagnosed disease-form and its cure:

History.—Mrs. L. L., aged 35 years, referred by Dr. William Duffield, Los Angeles, is the fifth in a family of nine children. Her parents are alive and healthy. There is no history of headaches or nervous disease in the family. Up to her seventeenth year the patient was in rugged health. Her menstrual history began at the age of 15, and is the dominant feature of the case. Menstruation has been very irregular. During the last five years it has appeared normally but twice, and not at all in the last thirteen months. Some of her headaches seem to have been due to cerebral hyperemia caused by suppressed menstruation, inasmuch as at every period when menses should show and failed to do so she suffered with terrific hyperemic headache. She was married five years previous to her first examination and has never been pregnant. Apart from her headaches and attendant symptoms the patient does not complain, except that she has had pain at times in the region of the appendix. She complains of terrific, prostrating headaches, and has suffered with them since her seventeenth year. They have been growing worse, and have become so intolerable that she has contemplated suicide.

Onset and Progress.—The headache begins as a sharp, cutting pain in both temporal regions. Thence it moves backward, and seems to go through the brain deeply. It is not noted in the frontal or occipital regions. There is the subjective symptom of excessive pressure from within outward and never the reverse. When it is at its worst she must jump to a sitting or standing posture; she has at times sat up in a chair all night because of it. When she lies down or stoops forward it is made worse. During the headache she vomits often. The duration of severe pain is generally from one afternoon through the night and until about 10 o'clock the next morning. There are no visual phenomena and no aural symptoms, except a dull throbbing. During the throbbing she feels as if there was pressure back of both eyes pushing them forward. The pain is generally one-sided, and is most often on the left. When it is at its height the face is cadaveric and she becomes very anxious. There seem to be two symptom-complexes: (1) intense encephalic hyperemia, especially when the menses are due (vicarious); and, grafted on this (2) migrain.

Examination.—Muscular condition is excellent, though there is evidence of underweight. Heart sounds and blood-pressure do not vary from the normal. There is no abnormality of the bony spine. Pupils are equal and react normally. There is spasm of the orbicularis palpebrarum on the left side. Pelvic examination demonstrates a small, undeveloped uterus but no ovarian disturbance (both ovaries seem normal as to size and position).

The patellar and biceps tendon reflexes are equal and somewhat exaggerated. Painful zones are noted below the left external ear and along the left side of the cervical and upper dorsal vertebrae, and over the trapezius muscle on the left side. There is some tenderness over the region of the appendix. Examination of the eyes (by Dr. Mansur) shows normal fundi, vision and muscle balance. There is no papillo-edema. The urine is normal.

Non-Operative Treatment.—The patient was first seen Aug. 29, 1911. For six weeks she was treated by the application of rest, massage and hydrotherapy, with regulation of occupation and diet. The headaches were treated symptomatically. The result was only fairly palliative, but not a cure. Operative treatment was held in abeyance until there was no doubt as to its indication.

Operation.—Nov. 13, 1911, she was operated on by Dr. William Duffield for the purpose of relieving ovarian dyscrasia, if possible. The ovaries were found normal in size, but rather more dense and tense than normal. A wedge-shaped piece was removed from each ovary, when the parenchyma of both was found to be riddled with small, pearly, cyst-like bodies. The ovaries were then sewed up. The appendix was removed, because of the history of persistent pain, and the abdomen closed. The uterus was found to be very small and hard. The cervix was dilated. The patient was given ovarian extract by mouth.

Results.—From that time to the present (she was last seen April 22, 1913), she has had no headaches except once, when she suffered with ptomain poisoning. The patient says that she is perfectly well and is able to do anything she likes. For some time she has taken no ovarian extract or any other medication. Not the least interesting phase of this case is that the patient has menstruated regularly ever since the operation.

I have presented this case with some hesitation and reluctance, because I am far from advocating surgical interference with the female genital organs except in those patent cases in which the indication is so plain that to disregard it would be unreasonable or obtuse. Aside from the results, the etiology, in this instance, fully justified the course pursued.

Auditorium Building.

Special Article

BACTERIAL VACCINE THERAPY: ITS INDICATIONS AND LIMITATIONS*

(*Continued from page 1881*)

IX

VACCINES OF SINGLE BACTERIAL SPECIES

For use under circumstances in which autogenous vaccines are not available, or in the occasional cases in which corresponding stock vaccines suffice, making the autogenous vaccine superfluous, it is customary to have on hand a supply of stock vaccines of the more usual species of pathogenic bacteria. These may now be considered one by one, the list including those with a wide vogue irrespective of the scientific claims for therapeutic value. With each vaccine, however, the effort will be made to indicate to what extent there is a reason for its existence. At the same time, under the heads of indications, there will be a brief discussion of the infections or diseases for which the vaccine is recommended, specifying those with real claims and those entirely unreasonable.

STAPHYLOCOCCUS VACCINE

This was the first of Wright's bacterial vaccines for therapeutic use—one of *Staphylococcus pyogenes aureus* used in the treatment of chronic furunculosis.

Preparation.—A pure culture of *S. aureus* recently isolated should be used to furnish the suspension for a stock staphylococcus vaccine. It is the opinion of the most experienced workers that whatever therapeutic potency a stock staphylococcus vaccine possesses can be secured by using *S. aureus*. The "polyvalent" vaccine consisting of a mixture of different staphylococci has not been found superior to that of *S. aureus* alone. Instead of attempting to stock oneself with single vaccines of the various staphylococci (*S. albus, S. flavus, S. citreus*, etc.), or resorting to a polyvalent combination, one who fails to secure a satisfactory response with stock *S. aureus* vaccine should administer a correct dose of freshly prepared vaccine of the autogenous staphylococci.

Indications.—Staphylococcus vaccine is prominent among the comparatively few which by common consent are valuable as stock preparations. A freshly prepared stock vaccine from a recently isolated culture of *S. aureus* seems to be quite as effective in those staphylococcic infections suitable for bacterial inoculation as the autogenous vaccine. In cases in which stock staphylococcus vaccine falls short and the autogenous preparation proves beneficial, it is probable that the successful outcome is due to the latter being fresh, while the former may have deteriorated.

Boils: Wright employed a staphylococcus vaccine first in a case of chronic furunculosis, sycosis and eczema. Singularly enough these three are still the chief ailments in which inoculations of staphylococci prove useful, and the order of probable success is that in which the diseases are named. In other words, a case of chronic boils is the most promising for the therapeutic application of staphylococcus vaccine, if it is not, indeed, the most promising in the whole range of bacterial infections amenable to bacterial therapy. Such a case still offers the most auspicious, and at the same time the least complicated, opportunity for a beginner in vaccine therapy who aspires to master its technic. Still not every case of chronic boils yields to staphylococcic inoculations whether of the stock or the autogenous variety. Mishaps in dosage or inoculation-interval explain some of these unsuccessful results, while others must be placed in the list of cases not suited to vaccine therapy, and explained by Wright as those in which the immunizing mechanism has been exhausted by the repeated failures of auto-inoculation. When this, comparatively the simplest clinical problem in therapeutic immunization, proves insurmountable by the most expert of specialists, no extended argument need be advanced in favor of prudence as regards vaccine therapy in general.

Eczema: Both the subacute and chronic varieties of eczema with serous oozing or pustules yielding *S. aureus* in abundance are often amenable to inoculations of staphylococcus vaccine. Good results are sometimes achieved in the generalized eczema of infancy, and more rarely in that of adults. Localized eczema is less responsive, and in the dry, scaly forms of the type of seborrheic eczema, unsatisfactory results are the rule, with an occasional satisfactory issue as the exception. Bacteria are not the primary cause of eczema, but aggravate an already existing lesion in some cases. When ordinary treatment directed to the underlying condition is of no avail it is well for the physician to remember that in some cases it has been supplemented successfully by the use of vaccines.

Sycosis: That form of "barber's itch" yielding *S. aureus* from the infected hair follicles will at times succumb to inoculations of staphylococci even after obstinate resistance to the usual forms of local treatment. Allied to this affection and sometimes terminating rap-

* This series of articles has been prepared under the direction of a committee appointed for the purpose by the Council on Pharmacy and Chemistry of the American Medical Association. The committee consists of Drs. Ludvig Hektoen, Chicago; David L. Edsall, Boston; John Howland, Baltimore; Reid Hunt, Washington, D. C., and Albert P. Ohlmacher, Detroit.

idly under appropriate bacterial inoculations is chronic staphylococcic folliculitis, as of the nostrils.

Acne: Although chronic acne originally was hailed as a most promising field for vaccine treatment, several years of thorough trial have shown that this treatment in acne is quite as uncertain as other measures. In cases of acne vulgaris with pronounced pustular formation a satisfactory outcome often follows a patient trial of staphylococcus vaccine usually extended over a period of weeks or months. Now and then one witnesses a complete recovery even after a few inoculations in a case of acne of the mixed type which has persistently refused to yield to all the usual therapeutic procedures; but extended experience will disillusionize the practitioner who from such a result anticipates unvarying success in the vaccine treatment of acne. The next case, perhaps, of acne of the face alone, or even localized in certain portions of the face and moderate as to lesions, may prove refractory to all effort. These considerations apply particularly to the use of stock staphylococcus vaccine, for a somewhat larger measure of satisfaction attends the inoculation of fresh autogenous vaccine.

To be convinced that commercial stock vaccines have been disappointing in the treatment, one has only to scan the list of "staphylo-acne" mixtures now on the market, illustrative of the rule that the mixed vaccines indicate a decreasing sale for those of a single bacterial species. Some manufacturers offer to overcome the difficulty by compounding a polyvalent vaccine in which are included staphylococci of the white, lemon-yellow and golden-yellow varieties, and from "many different lesions."

The discovery of various bacilli in comedones and seborrheic secretions, among which is one styled the "acne bacillus" by Sabouraud, has furnished a new impetus to the treatment of acne by bacterial vaccines, and especially to the commercial exploitation of a new line of mixed acne vaccines. As a matter of fact, the bacilli encountered in seborrheic acne are several as to species and variety. Special investigators in the bacteriology of skin diseases are not in accord as to these varieties or as to what if any pathogenic rôle to ascribe to them. Hence it follows that the so-called "acne bacillus" of commercial acne bacillus vaccines is a variable and uncertain quantity as to its identity and biologic properties. Therapeutically, this uncertainty is even more marked, as a fair clinical trial will demonstrate.

A safe working rule for the physician who would attempt the vaccine treatment of acne is to make a cautious trial of a good stock staphylococcus vaccine. If no improvement follows a reasonable trial of this preparation, it is fair to assume that the case is one which will resist all his efforts in vaccine therapy.

Other Localized Staphylococcic Infections: Staphylococcus vaccine is of questionable utility in staphylococcic carbuncle. In any event it should not be used to the exclusion of adequate surgical intervention. The same consideration applies to acute osteomyelitis. Staphylococci may be the exciting agents in a number of other acute, subacute and chronic localized infections, and occasionally of generalized infections like septicemia and pyemia. Here, however, the indication for staphylococcus vaccine (except in the generalized infections in which the expediency of vaccine therapy is doubtful) should rest solely on a preliminary bacteriologic diagnosis; and, of course, it is but a step from such a bacteriologic diagnosis to the preparation and trial of a fresh autogenous vaccine.

Contra-Indications.—In the literature advertising commercial vaccines, staphylococcus vaccine is recommended in impetigo, psoas abscess, suppurating glands, cystitis, "septic infections," otitis media, "mixed infections," mastoid infection, frontal sinus and antrum of Highmore infection, "infections following injury," "abscesses" and pyemia. Any one with sufficient knowledge of bacteriology knows that such a list embraces both localized and general infections of variable etiology with staphylococci as exceptional factors, or if involved, usually secondarily. The list is here reproduced as a warning against the empiric use of stock staphylococcic vaccine in any of the diseases mentioned.

Dosage.—Based on the standard of numerical value the dose of staphylococcus vaccine varies from 50 to 1,000 million. It is rare, even in infants, that a dose less than 50 million will evoke a therapeutic response; but occasion may now and then arise for the employment of doses larger than the average maximum of 1 billion.

STREPTOCOCCUS VACCINE

Compared with that of the staphylococcus, an entirely different situation is presented in the consideration of streptococcus vaccine from the point of view of the stock preparation. The field of usefulness of the stock streptococcus vaccine is strictly limited, and this limitation seems to be directly related to the variations which streptococci from different sources and different morbid conditions present—variations whose underlying cause is still undetermined, but which lead to the appearance of those diverse biologic characteristics by which they are differentiated into the groups, races or strains which subdivide the pathogenic streptococci as a species.

On occasion one may resort to a stock streptococcus vaccine in a given streptococcus infection with what appears to be a specific effect, but the same vaccine tested against another infection likewise due to streptococcus alone will prove quite unavailing. A physician who recognizes this drawback will not experiment, but while waiting for a possible response to the test inoculation of stock vaccine, will take steps to procure and use a vaccine of the autogenous streptococcus, provided the case appears to be one of promise from the point of view of vaccine therapy.

Preparation.—A standard stock streptococcus vaccine should be prepared from a suspension of recently isolated streptococcus of the variety classified as *Streptococcus pyogenes.* Such a strain is usually yielded in streptococcus cellulitis or in abscesses of streptococcic origin. This particular strain appears to possess all the therapeutic virtue possible to any stock vaccine of streptococcus. It usually is more valuable than any polyvalent vaccine of streptococcic races or strains. Perhaps one reason for such superiority lies in the fact that a polyvalent vaccine composed of numerous strains of streptococci can be administered only in the average dose—a dose which may fail to contain a sufficient number of bacteria of the one particular strain which perchance is indicated.

Indications.—Wound Infections: The most auspicious opportunity for the corresponding stock vaccine of streptococcus is in wound infections by this organism with such lesions as cellulitis, lymphangitis, adenitis, tendovaginitis and phlegmon, especially if this vaccine is of the *S. pyogenes* group. A sufficient measure of satisfaction has accrued to the inoculation of such a vaccine to warrant the trial of at least a single dose pending the making of an autogenous vaccine.

(To be continued)

New and Nonofficial Remedies

THE FOLLOWING ADDITIONAL ARTICLES HAVE BEEN ACCEPTED BY THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION. THEIR ACCEPTANCE HAS BEEN BASED LARGELY ON EVIDENCE SUPPLIED BY THE MANUFACTURER OR HIS AGENT AND IN PART ON INVESTIGATION MADE BY OR UNDER THE DIRECTION OF THE COUNCIL. CRITICISMS AND CORRECTIONS ARE ASKED FOR TO AID IN THE REVISION OF THE MATTER BEFORE PUBLICATION IN THE BOOK "NEW AND NONOFFICIAL REMEDIES."

THE COUNCIL DESIRES PHYSICIANS TO UNDERSTAND THAT THE ACCEPTANCE OF AN ARTICLE DOES NOT NECESSARILY MEAN A RECOMMENDATION, BUT THAT, SO FAR AS KNOWN, IT COMPLIES WITH THE RULES ADOPTED BY THE COUNCIL.

W. A. PUCKNER, SECRETARY.

PITUITARY LIQUID.—Extractum hypophysis cerebri liquidum, Armour.—Pituitary liquid is a sterile solution containing the active principle of the posterior lobe of the pituitary body of the ox, free from preservatives. Each cubic centimeter represents 0.2 Gm. of the fresh posterior lobe of the pituitary body in physiologic salt solution.

Pituitary liquid is made from the posterior lobe of the pituitary body of the ox by finely mincing the fresh glands and extracting with acidulated water. As the active principle is not destroyed by heat, the liquid is heated to boiling for the purpose of removing coagulable proteids and is then further purified by removing organic impurities such as peptones and other proteids. The clear colorless liquid is filled into one cubic centimeter ampoules and sterilized.

Pituitary liquid is a clear, colorless liquid having a faint but characteristic odor and slightly salty taste.

Pituitary liquid gives the biuret reaction. Alkaloidal precipitants such as phospho-molybdic acid, phospho-tungstic acid, bromine water, etc., all give faint but distinct precipitates of the active principle.

Actions and Uses.—Pituitary liquid stimulates the unstriped muscle, especially affecting the arteries, spleen, uterus and intestinal muscles.

Pituitary liquid is said to be useful in cases requiring stimulation of the heart or raising of the arterial tension, but these effects are of short duration. It is claimed to be diuretic, but this statement has been questioned. It is claimed to be valuable in paralytic distension of the intestines and in postoperative and other pareses as well as in promoting uterine contractions during labor.

This remedy should not be injected during the first stage of labor, because if the os uteri is not fully open the energetic contractions may cause a rupture of the uterus.

Dosage.—1 Cc. (15 minims) repeated in one hour if necessary. Pituitary liquid should be administered intramuscularly in the gluteal region under strict antisepsis in order to secure quick action and prevent necrosis. Pituitary liquid is supplied in one Cc. ampoules only.

Manufactured by Armour and Co., Chicago, Ill. No. U. S. patents or trademarks.

Ampoules Pituitary Liquid.—Each ampoule contains pituitary liquid 1 Cc.

LUMINAL TABLETS.—The following dosage forms of an accepted proprietary article have been accepted for inclusion with New and Nonofficial Remedies:

Luminal Tablets, 1½ grs.—Each tablet contains luminal 0.1 Gm. (1½ grains).

Luminal Tablets, 5 grs.—Each tablet contains luminal 0.3 Gm. (5 grains).

Prepared by E. Merck, Darmstadt, Germany (Merck and Co., New York).

Surgeons Blame Fee-Splitting Practice on Physicians.—"Several of the most prominent surgeons in Indiana," says the *Journal of the Indiana State Medical Association*, "have volunteered the information that they are opposed to fee-splitting because they think it is a pernicious practice, and morally wrong, but that they are forced to divide fees on account of the avarice of the general practitioner who demands compensation for referring his cases. As an evidence of this, specific cases are cited in which general practitioners have written letters in which they state that they have certain cases for operation providing a stipulated percentage will be paid by the surgeon doing the work. One general physician is bold enough to send a form letter to several surgeons asking what commission is paid for cases referred." The *Journal* explains that while the services of the general physician are usually worth what he gets out of the case by dividing the fee with the surgeon, he should charge the patient direct. "The average patient is not only willing, but anxious to pay just compensation for medical services rendered. The family physician will find that he can collect his fee from the patient without the slightest trouble whatever, whenever he earns it, and he earns it whenever he gives the patient good advice and attention in a professional capacity. To collect the fee secretly through a surgeon is an admission of weakness which has no place in the honorable practice of medicine."

Rapid Estimation of Uric Acid.—Dr. J. E. Huber, Peoria, Ill. (*Bulletin of the Peoria City Medical Society*, January, 1913), suggests the following modification of Folin's method of estimating the uric acid in urine:

The following reagents are required:

1. Ammonium-uranium solution:
   Ammonium sulphate, 500
   Uranium acetate, 5
   Water, 650
   10 per cent. acetic acid, 60
2. Saturated ammonium chlorid solution
3. 10 per cent. ammonium sulphate solution
4. 1 per cent. sodium carbonate solution
5. Fiftieth-normal potassium permanganate volumetric solution

The method is as follows: Treat 50 c.c. urine with 12 c.c. of the ammonium uranium solution, allow to stand ten minutes and filter clear. Of this filtered urine concentrate 31 c.c. on a water-bath to about 5 c.c., which should take about half an hour. Wash this 5 c.c. urine into a centrifuge tube, with saturated ammonium chlorid solution, using not quite enough to fill the tube, then stopper with a clean cork and shake thoroughly, and allow to stand from ten to fifteen minutes in cool water. At the end of this time the ammonium urate will have crystallized out; the tube is then placed in the centrifuge and whirled for a minute or two. The deposit will be well packed in the bottom of the tube so that the ammonium chlorid solution can be poured off completely. Fill up the tube with 10 per cent. ammonium sulphate solution and shake up well, so that the precipitate is broken up and distributed through the fluid. Centrifugalize again, pouring off the ammonium sulphate solution, and repeat the process once more. Pour off the ammonium sulphate solution and add about 5 c.c. of 1 per cent. sodium carbonate solution, gradually warming the tube so that everything goes into solution. Transfer this solution to a beaker, washing out the tube with water until about 25 or 30 c.c. total fluid is obtained. Then add 7 c.c. concentrated sulphuric acid and titrate with fiftieth-normal potassium permanganate, titrating to the first diffuse blush of red throughout the whole of the fluid. Each cubic centimeter of potassium permanganate equals 0.0015 gm. uric acid. To the calculated amount of uric acid found, a correction of 1 mg. must be added. The operation need not take more than one hour; the actual work after the evaporation is finished should not consume fifteen minutes.

Emergency Lighting Plant for Ships.—To swell the horrors of a sea disaster at night the lights are apt to be put out by the flooding of the electric generating plant. But is it necessary to depend on a plant located where it is liable to be flooded? Experiments are being made now on a large British vessel that is under construction, with a gasoline electric plant that may be placed on the bridge deck. This set will not only supply the light, but the wireless telegraph apparatus as well, so that the occupants of the vessel may be supplied with light and the means for calling for assistance until the very moment of complete submergence of the vessel. This generating set will be used only in emergencies.—*Scientific American.*

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

535 DEARBORN AVENUE . . . CHICAGO, ILL.

Cable Address . . . . "Medic, Chicago"

Subscription price . . . . . Five dollars per annum in advance

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SATURDAY, JUNE 21, 1913

ORGANIC PHOSPHORUS COMPOUNDS

The organic compounds of phosphorus present little difference in nutritive value so far as the phosphorus is concerned, since they are all decomposed in digestion and absorbed as inorganic phosphates. What differences exist depend on the differing nutritive power of the organic compounds with which they are combined. A well-known physiologic chemist says:[1] "The value of the organic phosphorus compounds in nutrition entirely depends on the nature of the organic matter with which the phosphoric acid is combined." This statement may come as a surprise to many who have heard the supposed virtues of "organic phosphorus" lauded in emphatic terms. We have already pointed out[2] that without question the organic phosphorus compounds can be built up in the animal body from inorganic phosphate. Both organic and inorganic phosphorus compounds can therefore be utilized in the organism; but mere feeding experiments with the organic types do not show in what form their phosphorus is assimilated. Whether or not they are first hydrolyzed and then resynthesized can be determined only by special trials in which the influence of the digestive juices and alimentary conditions on the different organic compounds of phosphorus is ascertained; for whether the intake of phosphorus be organic or inorganic, the end-product excreted in the urine is almost entirely inorganic.

The fact that the phosphorus of the feces is mainly in the inorganic form of phosphate is in itself suggestive of a decomposition in the organism. Dr. Plimmer[1] has, however, subjected the question of the behavior of the more familiar types of organic phosphorus compounds toward the enzymes of the pancreas, intestine and liver, as well as some of plant origin, to the test, so as to obtain a comparative survey of the subject. The organic representatives—glycerophosphoric acid, hexosephosphoric acid, ethylphosphoric acid, phytic acid, nucleic acids, the phosphoprotein casein—were, excepting phytic acid, hydrolyzed by the intestinal mucosa, and their fate in assimilation is like that of the other foodstuffs, all of which are known to be broken down as they pass the intestinal wall and before they enter the circulation. The organic phosphorus compounds, in Plimmer's estimate, are therefore almost certainly assimilated as inorganic phosphate together with the organic radical with which the phosphorus is combined.

There is no evidence that phytic acid—the basis of phytin, which is the calcium magnesium salt of this inositolphosphoric acid—is absorbed as such, despite its refractory behavior toward the alimentary enzymes. For there are phytases in the vegetable foods, so that in herbivora phytin can be hydrolyzed, that is, digested, much as cellulose is by the cytases of plant tissues which enter into the diet. In man and the carnivora bacteria in the large intestine may perform this cleavage function so that in any event phytic acid will enter the circulation as inositol and phosphoric acid. Inositol has, in fact, been found in many tissues. The nutrient virtues or the pharmacologic properties of such phosphorus compounds, if they possess any aside from that of the phosphoric acid radical contained in them, are therefore probably those of the simpler components which they yield in the way here suggested.

1. Plimmer, R. H. A.: The Metabolism of Organic Phosphorus Compounds. Their Hydrolysis by the Action of Enzymes, Biochem. Jour., 1913, vii, 43.

2. The Nutritive Value of Inorganic Phosphates, editorial, THE JOURNAL A. M. A., April 20, 1912, p. 1198; Organic and Inorganic Phosphorus Compounds, editorial, THE JOURNAL A. M. A., May 25, 1912, p. 1605.

THE PROPOSED INTERNATIONAL CATALOGUE OF INCUNABULA

At the meeting of the Medical Library Association, held in Washington, D. C., May 5, Sir William Osler gave an interesting talk on the plan now being carried out in Germany of making a complete catalogue of all the known incunabula in the world, including the medical. The advantages of such a project will be obvious to any one who has had anything to do with these ancient tomes, which, as their designation implies, are the very "cradles" or "swaddling-clothes" of European learning—in effect, the earliest printed books, including, by common agreement, all published up to the year 1500. Many of these books are without title-page, colophon, author, date and place of publication or publisher, and these data can be supplied only by an intensive study, along the lines pursued in any comparative science, of their typography, initial letters, paper, watermarks and other features, in connection with the internal evidence which may be derived from a study of their contents and what is known of their individual histories.

Anyone who looks at the splendid catalogue of "xylographica and books printed with types at Mainz, Strasburg, Bamberg and Cologne" issued by the British Museum in 1908, will realize how much can be supplied by competent scholarship to the life history of a given book. For example, the identity of Adolf Rusch, the "R-printer" of Strasburg, who did the typesetting of the "Liber Aggregationis" or "Aggregator de Medicinis Simplicibus" of Jacopo de Dondis (1298-1359), one of the

earliest books to be printed (1470), was established by a good deal of Sherlock Holmes investigation in which the distinguished philologist, Karl Dziatzko, played an important part. We do not yet positively know what is the earliest printed book, and it was only recently that Karl Sudhoff of Leipsic discovered in the Bibliothèque nationale at Paris the first medical publication to be set in type, the Purgation Calendar (*Laxierkalender*), printed by Guttenberg, in the type of his thirty-six-line Bible, in 1457.[1] This is only a single sheet of paper, fragmentary at that, and not a book. Valescus de Taranta's tract on the plague and the Pandects of Matthaeus Silvaticus are also supposed, like the R-printer's book, to have been published about 1470, and there is internal evidence that Roland of Parma's tractate on the treatment of pest may have been printed about 1468; but nothing definite can be asserted until all the known medical incunabula have been properly classified, collated and studied as to their contents and life histories.

The "Repertorium Bibliographicum" of Ludwig Hain (1826-1828), with the valuable supplements of the learned English barrister, Walter Arthur Copinger (1895-1902), and of Dietrich Reichling (1905-1911) are still the sources of authoritative knowledge in regard to the incunabula, marvelous monuments of learning and industry. Ludwig Choulant (1852-1858) and Karl Sudhoff (1908) have exhausted the possibilities of the graphic incunabula of anatomy, medicine and natural science, Ernst Voaillième, of the Royal Library of Berlin, has catalogued the incunabula in the Berlin collections (1906), Otto Günther the Leipsic and Altenburg incunabula (1909), and Sudhoff has devoted an exhaustive monograph to medical incunabula in the German language (1908). The four-volume "Typenrepertorium" of Konrad Haebler of the Berlin library (1905-1910) is a valuable storehouse of the type-fonts of the fifteenth century books, a detail which is one of the principal clues to their authorship, publisher, probable date and place of publication. Haebler has also catalogued the Spanish incunabula (1904), and Marie Pellechet, now deceased, began a catalogue of the French (1897-1905). In 1910, R. A. Peddie began a numeral check-list of fifteenth century books or "conspectus incunabulorum," which, to date, has progressed no further than the letters A and B.

The proposed catalogue of the Prussian commission, if it can be properly carried out by international cooperation, will probably surpass all other efforts in this kind and will be a standard source of reference for the future. It appears that about 150,000 incunabula have already been catalogued in Germany, and official requests for check-lists from the different libraries of other countries are being sent out by the Prussian commission. American medical libraries, including those of the Surgeon-General's office and the College of Physicians of Philadelphia, will send their quota in due course. What is wanted, at present, is an alphabetical catalogue, by authors, when known, of each library's or person's incunabula, following the lines laid down by Hain and Copinger. These will then be collated with the titles making up the whole collection, and, if it should turn out that a library or an individual has an incunable which cannot be identified or is different from the others, a full description and life history of the book, its style of typography, initial letters and water-marks would probably be requested. For purposes of identification and for establishing trade values, such a catalogue must necessarily appeal to the owners of these rare books in the same way that the printed catalogues of the genuine Stradivarius and Guarnerius violins appeal to collectors of these instruments; and we have no doubt that public libraries and private persons owning incunabula in America will be glad to comply with the request of the Prussian commission (Kommission für den Gesamtkatalog der Wiegendrucke) which has its headquarters at Berlin.

1. Sudhoff, Karl: Arch. f. Ges. d. Med., 1907-1908, I, 223.

OXALURIA

The enormous literature which exists on the subject of oxaluria is attributable to the fact that the insolubility and characteristic crystalline appearance of the well-known oxalate of calcium make it one of the most conspicuous objects discernible by the microscopic examination of the urine. Every routine inspection of urinary sediment furnishes an opportunity for even the inexpert to have attention called to an easily identified component. Little wonder then that the question of the significance and the origin of oxalic acid in the urine has long been a familiar topic for discussion. As a result the importance of this substance as a cause of pathologic phenomena has been greatly magnified. We believe that it is a tenable conclusion to say that the only conspicuous significance of the oxalates at present is to be found in their tendency to form sediment or concretions. The latter have been known since the days of Wollaston in the eighteenth century. Oxalates may form the nucleus for deposits of urates or phosphates, aside from existing alone without admixtures. They produce the hardest and roughest of stones, which are usually first formed in the pelvis of the kidney so that they frequently cause bleeding.

The therapy of oxaluria, for which the chief call appears to be in connection with threatened formation of oxalate concretions, must aim at a diminution in the excretion of oxalic acid and a greater solvent power of the urine for calcium oxalate. The latter is not easy to bring about with any degree of certainty, and the possibility of decreasing the output of oxalic acid depends on exact knowledge of its precursors and sources in the organism so that they may be controlled and curtailed. This is where the practical difficulties have arisen owing to the confusion that exists on the subject.

If we attempt, without any guarantee of finality in the matter, to present the current consensus of opinion, it is done with a confession of the difficulties which attend the unraveling of conflicting claims. Three possibilities present themselves. First, oxalic acid may be present preformed in the food and serve as a source of the excreted product. Secondly, it may be produced from certain foodstuffs themselves. To the biochemist this contingency always appeals because of the great ease with which oxalic acid can be obtained in the laboratory from such diverse compounds as sugar, protein, uric acid, etc., by oxidative processes. Thirdly, it may have a purely endogenous origin in reactions occurring within the tissues themselves.

Unquestionably certain foods like rhubarb and spinach contain oxalic acid. Whether this is attacked and destroyed in the organism, or passes through it unoxidized, being thereupon eliminated in the urine, has not been easy to decide owing to the difficulty of ascertaining to what extent ingested oxalic acid or its salts are actually absorbed. There is growing evidence that if they really enter the circulation, little if any destruction occurs. Aside from the excretion of preformed oxalic acid, however, it seems undeniable that this compound can also be manufactured from the familiar foodstuffs. An unexpected source has been described in the excessive gastric fermentation of carbohydrates.[1] The latest investigator in this field[2] concludes that the proteins have no influence on the production of oxalic acid, in contrast with the positive rôle of the carbohydrates and the glycerol complex of the fats. All of our foods contain components which either directly or indirectly contribute to oxalate formation. When, however, the extremely small output attending a large intake of the most varied substances is taken into account, the impression is gained that the capacity of the organism itself to form oxalic acid is at best a limited one.

The part taken by the alimentary tract in relation to the excretion of oxalic acid in the urine unquestionably calls for greater elucidation. The oxalates in foods are present largely in insoluble forms that require some cooperation on the part of the digestive agencies to make them available for absorption. Perhaps the problems of oxaluria need to be studied more extensively from the point of view of the gastro-intestinal situation than has been customary hitherto.

1. Baldwin: Jour. Exper. Med., 1900, v. 27.
2. Wegrzynowski, L.: Beiträge zur Lehre von der Entstehung der Oxalsäure im tierischen und menschlichen Organismus, Ztschr. f. physiol. Chem., 1913, lxxxiii, 112.

THE ORIGIN OF COMPLEMENT

The substance (or substances) known as complement is of essential importance in the defense of the body against infection and in the processes of parenteral protein digestion in general. It is also an integral factor in the reaction called complement-fixation, now used largely for diagnostic purposes. Naturally the question of the origin of a substance of this kind early attracted notice. Soon after its discovery Metchnikoff took the stand that complement is derived from the leukocytes, being liberated as they undergo disintegration. Since then this explanation has been repeated on various occasions, but as yet we have no really convincing experimental results that point directly to the leukocytes as the source of complement. Indeed, the most recent work fails to establish any definite connection between complement and leukocytes.

Addis[1] and Dick[2] were unable to confirm the result originally obtained by Gengou, that the plasma of the blood is free from complement, nor were they able to demonstrate any increase in complement in the serum when left in contact with the blood-clot and its leukocytes which has been asserted to be the case. Lippmann and Plesch[3] gave thorium X in large enough doses to destroy practically all the leukocytes in the blood of guinea-pigs, but this was not followed by any increase in the complement. It would be reasonable to expect an increase if the leukocytes are the source of complement; these investigators found, furthermore, that complement is regenerated as quickly as in normal animals even when the leukocytes and bone-marrow have been destroyed by thorium X. Dick searched for complement in the various organs by methods suitable for that purpose and also studied the effects of the removal of various organs that can be removed without necessarily killing the animal, but failed to discover any indications as to the place of formation of complement. He then resorted to the use of chloroform and hydrazin sulphate, poisons which cause severe changes in the liver, and he found that there resulted a marked diminution in the amount of complement in the blood. Others have observed that complement is reduced in phosphorus poisoning, in which the liver is also affected.

Here, then, are three substances which cause grave disturbances in the liver especially, and as this is associated in each case with reduction of complement the indications point to the liver as directly or indirectly concerned in its production. And there the matter rests for the present.

1. Addis, T.: The Bactericidal and Hemolytic Powers of "Paraffin" Plasma and of Serum, Jour. Infect. Dis., 1912, x, 200.
2. Dick, George F.: The Origin and Nature of Complement, ibid., 1913, xii, 111.
3. Lippmann and Plesch: Sind die Leukozyten die Quelle der Komplemente? Ztschr. f. Immunitätsforsch., 1913, xvii, 548.

Public Health against Private Gain.—The food adulterators and the "patent-medicine" fakers are the real foes of the national department of health. They skulk in the background behind vapid legislators who prate of state rights, behind complaisant officials willing to support silly charges against upright administrators, behind honest Christian Scientists misled as to the real purpose of the proposal, behind antivivisectionists and antivaccinationists and all the fanatics they can rally to their support with talk of medical freedom. The medical freedom they seek is freedom to poison, debauch and slay, and their opposition should bring to the support of the movement every decent citizen.—*Pearson's Magazine*.

Current Comment

METABOLISM STUDIES IN PELLAGRA

In a recent number[1] we referred to the dietary studies which have been conducted by the Illinois Pellagra Commission in the attempt to elucidate the baffling problems connected with the incidence of pellagra in some of the institutions of the Middle West. Those studies were confined almost entirely to the question of the adequacy of the dietaries and the possibility of discoverable deficiencies in respect to their general make-up. Under the auspices of the Thompson-McFadden Pellagra Commission of the New York Post-Graduate Medical School and Hospital, Drs. Myers and Fine have attempted to extend our knowledge of the metabolism in this disease by painstaking investigation of a number of pellagrins. These newest studies include a very comprehensive examination of the intake and output of individuals exhibiting the disease in various stages of severity. The detailed results cannot be reproduced here.[2] It appears that anacidity is a symptom in pellagra, and is chiefly associated with an entire absence of pepsin or with the presence of only a diminutive content of this enzyme. These features of gastric insufficiency doubtless serve to account for the marked indicanuria reported in the case of the pellagra patients. The feces exhibited decidedly abnormal amounts of indol and skatol, especially the latter. In the light of these facts it is not impossible, as Myers and Fine suggest, that some unusual bacterial conditions are present in the intestine, although the evidences of excessive putrefactive changes need in no wise be regarded as specific for pellagra, since they are frequently found in other complications associated with the absence of hydrochloric acid from the gastric secretions. Aside from these alimentary bacterial changes, the metabolism experiments on the pellagrins show no unusual inability to utilize the various foodstuffs of the dietary. The elimination of mineral and nitrogenous constituents in the urine is what would be anticipated under the regimen and physical conditions of the individuals concerned. The presence of a few hyaline casts in a number of cases may point to some possible irritation of the kidneys. Small amounts of creatin have also been detected in the urine. Aside from incidental findings of this sort, however, there is little indication of any lowered physiologic efficiency. It is still obvious that other points of attack must be found before the obscurities in respect to the etiology of pellagra shall be entirely dispelled.

1. The Nutrition Investigation of the Illinois Pellagra Commission, editorial, THE JOURNAL A. M. A., March 15, 1913, p. 823.
2. See Myers, V. C., and Fine, M. S.: Metabolism in Pellagra, Am. Jour. Med. Sc., 1913, cxlv, 705.

THE ASSOCIATION IN SESSION AT MINNEAPOLIS

According to telegraphic despatches received as we go to press, the sixty-fourth annual session of the American Medical Association being held this week in Minneapolis bids fair to be one of the most successful meetings in the history of the Association. Weather at the Twin Cities is warm and clear with occasional showers. The number of physicians registered is large for a northwest point and Minnesota physicians, in particular, are out in force. The anticipated attractions that this meeting would have in being held on the university campus are being realized. The reception which medical men from all parts of the country are receiving is most cordial and the arrangements made for the entertainment of the city's guests are of the pleasantest. The hotels are well filled; many who failed to make their reservations in advance of the meeting are being cared for at chapter houses and in private homes. The visiting physicians are unanimous in their praise of Minneapolis. The House of Delegates met Monday and a report of their meeting appears in this issue, beginning on page 1962. This also includes reports of the Secretary, the Board of Trustees, etc. The opening session of the Association was held at the Auditorium Tuesday morning. The meeting was called to order by President Abraham Jacobi, and before the meeting closed President-Elect John A. Witherspoon was installed as president. Governor A. O. Eberhart welcomed the visiting physicians on behalf of the state, Mayor Wallace G. Nye for the city, President George E. Vincent for the University of Minnesota and President H. H. Kimball for the Hennepin County Medical Association. During the noon hour Tuesday, a complimentary luncheon was served on the university campus, an innovation that seemed to appeal to the visiting physicians. "Public Health Sunday" was a great success; the addresses delivered by physicians in the various churches deservedly received high praise.

MICROBIC SYMBIOSIS

The "antagonism" of bacteria, or more precisely the detrimental effect of bacterial products produced by one species on the cells of another species, has been more or less completely studied in a number of instances, but less is known about the favorable or stimulating effect of microbic association. An interesting example of the latter phenomenon has recently been described in a bulletin of the Michigan Agricultural Experiment Station.[1] It is there shown that certain acid-destroying yeasts have the power of maintaining lactic acid bacteria in a condition of activity for long periods when grown with the latter in mixed culture. A "weak" lactic bacillus may be "rejuvenated" by continued association in mixed culture with these yeasts. The filtrate of the yeasts, heated as well as unheated, has a marked stimulating effect both on the vitality and on the acid production of weak lactic bacteria. Northrup is convinced that acid introduced artificially or produced naturally in milk or whey is not merely neutralized but is destroyed by the yeasts. It is not shown that the yeast on its side derives any benefit from the association. This kind of work offers some suggestions for bacteriologists in other fields. It may be asked, for example, if human carriers of diphtheria bacilli or of the streptococcus of septic sore throat may not possibly owe their condition to a symbiotic relation established between the pathogenic microbes and other forms.

1. Northrup, Zae: The Influence of Certain Acid-Destroying Yeasts on Lactic Bacteria, Technical Bulletin 15, Michigan Agr. Exp. Sta., 1912.

PROCEEDINGS OF THE MINNEAPOLIS SESSION

MINUTES OF THE SIXTY-FOURTH ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION, HELD AT MINNEAPOLIS, JUNE 16-20, 1913

HOUSE OF DELEGATES

First Meeting—Monday Morning, June 16

The House of Delegates met in the Engineering Building of the University of Minnesota, and was called to order at 10:10 a. m. by the President, Dr. Abraham Jacobi of New York.

The first thing in order was the report of the Committee on Credentials.

Dr. Morgan Smith, Arkansas, a member of the committee, reported that thirty-nine delegates had been regularly enrolled and were entitled to seats in the House of Delegates, and stated that the Committee would make a supplementary report later.

Before the close of the meeting sixty-six members of the House were reported in attendance.

The President called for the reading of the minutes of the sixty-third annual session.

On motion of Dr. Arthur T. MacCormack, Kentucky, which was duly seconded and carried, the reading of the minutes was dispensed with.

President Jacobi then addressed the House. His address, which follows, was referred to the Reference Committee on Reports of Officers, with the cordial approval of the House of Delegates.

President Jacobi's Address

The President of the American Medical Association is not expected to consider on this platform strictly scientific or technical problems. He must not compete with the sections whose contributions are expected to secure or just miss individual immortality, but I think so much of their value for the work of the American Medical Association that at the very beginning of my remarks I suggest that the sections could make their usefulness greater than ever before if their papers were fewer in number. The sections would not suffer, while the papers would still convey credit to the authors. Not all the papers necessarily benefit the thousands of listeners, and ample discussion may afford more knowledge and enlarge our horizon more than a voluminous paper. Questions announced beforehand for the purpose of eliciting brief papers from whosoever is ready — call them symposiums or what not, or the extemporaneous remarks of men of maturity and wisdom will enlist sympathy and not only draw audiences but also hold them. We write too much and debate too little.

I wonder how the chairmen of our sections feel when their brief term of office has terminated. Their secretaries, however, are men to do the hard work and to be satisfied with small type on circulars and announcements. They should, however, have a different position and office. In Europe the secretaries of academies and learned societies do not change. There Helmholtz and Humboldt and Waldeyer hold their trusts forever. In them are represented the scientific achievements of decades. I suggest such change in our organization. All our section secretaries should be the prominent scientific men of our profession. From year to year they should be anxious to add to the perfection of the scientific work of their sections and through it attain what will bring to them a solid national reputation. I suggest that the proper committee consider that question with a view at least to a change in the duration of the service of the section secretaries.

The President is justly expected to pay his attention to the physical, educational, economic and moral interests both of the profession at large as represented in our vast organization, and of the nation whom we should be eager to teach and guide. I suggest, however, that his responsibility be not exhausted by attending to our common and individual interests only, but to our duties toward those who are less instructed than we are, or believe we are, and less capable of rendering appropriate services to the millions of fellow citizens all over the country. That is why from time to time the most comprehensive questions of the people's health and welfare are discussed by you or by your officers. Now, the opportunities your President has to address you are few, and thus far, while the honor you have conferred on him and on his predecessors is great enough to satisfy the most ambitious, his influence has been trifling and far from permanent. Maybe I shall be permitted to make a few suggestions in regard to his position and the duties which should be connected with his exalted place. Your Constitution, however, limits him for the present to the performance of a very few duties. Now, while he is in office he should not try to change or suggest a change of his constitutional rights or responsibility. He must not while in office even be suspected of attempting to add to the prerogatives of his position, which was tendered by the kindliness of his peers and which has rarely, if ever, been conquered by undemocratic covetousness and should never in this non-sectarian, unselfish, altruistic profession of ours be the prey of political push and underhanded solicitation.

The honor of my election enforced very little work, but profound silence, in the various councils which your presidents should have the right to attend and in which they should have the right to speak and to labor for you. That should be so in the future. You may not know that your President was obliged to ask for invitations which, indeed, were cordially given, to attend the meetings of your selectmen. This congress of delegates should change that. Your future presidents should automatically occupy a full seat in all your councils except, perhaps, the Board of Trustees. They should be the chairmen in some of them; they should have a veto or deciding vote in case of necessity, and one of their duties must be the obligation, not the right only, to talk to the Association more than at present.

In the Athenian Republic the leaders addressed the whole people, who came to listen and to judge. But unfortunately, even the mass-meeting of the Association is far from being the whole people but only a select and conscientious few. We are altogether 70,000 strong and the absentees amount to more than 90 per cent. of our people. That is why I feel like addressing the absentees mostly through you their representatives. Why are you absent from this one opportunity to meet your more punctual brethren and perform your obligation by proving your citizenship? Neglect is the road to extinction — through permitting the possibility of neglect on the part of those whom you have made your masters, aye, even the alleged conspiracies of whom some of you like to talk about mostly in private, sometimes in the market-place. If there be any cause for that it is your indifference. It is a wonder you have, after all, conscientious hard-working officers whose worth I have had, in my frequent contact with them, many reasons to admire. Your indifference may at least tempt your delegates and other officers to think little of their duties. You make them the aristocracy of our profession, but do not always succeed in making them what they would gladly be — your willing servants, for that is what we are and should be. A predecessor of mine may have had experience like that when he mournfully complained that the activities of the American Medical Association were at a standstill. Was it indifference he complained of? I wish I could look into 10,000 more pairs of eyes of our friends.

Maybe you are pleased to know a little more of what may happen behind the curtains. Many letters received by me during this year express the dissatisfaction of the writers

with the methods arranged for the business of the Association. Some want a day set aside — a whole day, for the discussion of its business. They do not remember, however, that the necessity of making ample room for our legitimate scientific work caused the creation of the House of Delegates and the transmission of all scientific work to the sections. It has amply fulfilled the expectations expressed at the time of its foundation. There is no reason, it seems to me, for a change.

The House of Delegates has always great responsibility and much work. Nobody knows that better than you, and mainly those who have had a seat here many years. One of them shares my suggestion, or rather I share his — that your house should convene three days in advance of the official meeting, should not be compelled to hurry its work, should take ample time for consideration and discussion, should not be tempted to rush and run the risk of regretting, and should be ready for the scientific work of the sections with easier minds. My experience in this and other bodies has been that men with scientific minds and altruistic hearts are for the most part those who wish to do all their work, and fulfil all their obligations. As we are situated now, with only one day open for the extensive work of this house, many who would be anxious to serve the Association refrain and decline because they are just as anxious to perform their duties both to others and themselves, in the sections.

The House of Delegates, in the opinion of some, is possessed of more absolute power and autocratic possibilities than the Congress of the United States. It is for you and you alone in your states to select the personalities of your delegates and to outline their responsibilities. If my angry correspondents would pray less and watch more, and would interest themselves in their county and state societies and in the election of their various delegates, they would have less reason to complain of what some of them term the oligarchy of Chicago and the autocracy of the House of Delegates. Both a vast organization like ours and the country at large have exactly the government they deserve. My correspondents will please mind the advice I have given a few of them, namely, to make themselves felt in their county and state and make their influence felt for the good of all. Perhaps it will be opportune, however, to learn that in connection with a few epistles of rebuke and expostulation I found I had to put up with the wiseacres who were members of no societies and even with those who were not yet citizens of the country and without any affiliation except with freedomers. If you had the benefit of an Ellis Island of your own you would have fewer undesirable citizens of the profession, fewer backbiters, fewer calumniators of persons and aims, fewer enemies of the profession, and fewer conspirators.

The President read a communication from the American Institute of Homeopathy.

Reference Committees

The following Reference Committees were appointed:

SECTIONS AND SECTION WORK

Thomas A. Woodruff ..... Section on Ophthalmology.
William LeMoyne Wills ..... Section on Surgery
S. W. S. Toms ..... New York
Rock Sleyster ..... Wisconsin
Hugh H. Young ..... Maryland

RULES AND ORDER OF BUSINESS

Theo. B. Appel ..... Pennsylvania
John O. Polak ..... New York
Hubert A. Royster ..... North Carolina
Edgar A. Hines ..... South Carolina
M. N. Voldeng ..... Iowa

MEDICAL EDUCATION

Henry L. Elsner ..... New York
H. D. Arnold ..... Massachusetts
A. C. Cotton ..... Illinois
V. G. Vecki ..... California
W. A. Jayne ..... Colorado

LEGISLATIVE AND POLITICAL ACTION

E. J. Goodwin ..... Missouri
P. A. Haley ..... West Virginia
Joseph Y. Porter ..... Florida
A. R. Mitchell ..... Nebraska
Thomas S. Cullen ..... Section on Obstetrics, Gynecology and Abdominal Surgery

HYGIENE AND PUBLIC HEALTH

Oscar Downing ..... Louisiana
M. P. Ravenel ..... Section on Preventive Medicine and Public Health
John W. Kerr ..... U. S. Public Health Service
W. E. Anderson ..... Virginia
W. S. Lalor ..... New Jersey

AMENDMENTS TO CONSTITUTION AND BY-LAWS

Floyd M. Crandall ..... New York
B. R. McClellan ..... Ohio
Edwin Walker ..... Indiana
W. W. Richmond ..... Kentucky
W. B. Russ ..... Texas

REPORTS OF OFFICERS

Donald Campbell ..... Montana
Chevalier Jackson ..... Section on Laryngology, Otology and Rhinology
Thomas McDavitt ..... Minnesota
Seale Harris ..... Alabama
M. Howard Fussell ..... Pennsylvania

CREDENTIALS

D. Chester Brown ..... Connecticut
E. A. Vander Veer ..... New York
H. W. Van Allen ..... Massachusetts
Morgan Smith ..... Arkansas
J. H. White ..... Oklahoma

MISCELLANEOUS BUSINESS

C. R. Woodson ..... Missouri
J. Z. Shedd ..... New Hampshire
Louis J. Hirschman ..... Michigan
A. T. McCormack ..... Kentucky
K. A. J. Mackenzie ..... Oregon

The Secretary read his report, which was referred to the Reference Committee on Reports of Officers.

Report of the Secretary

To the Members of the House of Delegates of the American Medical Association:

For the year 1912-13 I submit the following report:

MEMBERSHIP

The membership of the American Medical Association on May 1, 1912, was 34,283. During the past year, 303 members have died, 1,179 have resigned, 405 have been dropped as not eligible, 521 have been dropped for non-payment of dues and 13 have been removed from the rolls on account of being reported "not found," making a total of 2,421 names to be deducted from the membership list. There have been added 6,051 names to the membership roll, of which 4,695 were transferred from the subscription list. The membership of the American Medical Association on May 1, 1913, was 37,913, a net increase for the year of 3,630.

As is readily seen, this gain in members is due largely to circularizing subscribers to THE JOURNAL who were eligible, urging them to become members. While it is gratifying to report so large an addition at this meeting, it should be remembered that this increase under normal conditions would have been distributed throughout the years during which the question of postage on Journals mailed to members was unsettled.

MEMBERSHIP OF STATE ASSOCIATIONS

The membership of the various constituent state associations according to the records in the Secretary's office, May 1, 1913, is shown in the table on page 1964.

AD INTERIM COMMITTEE CHANGES

Since the last meeting of the House of Delegates, June 6, 1912, the following changes in the personnel of the committees have been made at the direction of the President:

Committee on Scientific Exhibit—Frederick S. Mandelbaum, New York, resigned from the committee.

The Committee on Memorial to Medical Officers Who Died in the Civil War was reorganized by electing S. Weir Mitchell, Philadelphia, chairman of the committee, vice William C. Gorgas, resigned, from the chairmanship of the committee.

Committee on Clinic Days—James E. Moore, Minneapolis, vice Alexander Lambert, New York, resigned.

Committee to Advise with the British Medical Association—W. W. Grant, Denver, chairman, vice A. T. Bristow, New York, deceased.

STANDING RULES TO GUIDE THE COMMITTEE ON CREDENTIALS

The following correspondence with the Secretary of the Medical Society of the State of New York is submitted to the House of Delegates that it may be referred to the Reference Committee on Rules and Order of Business for its consideration and report, that the House may direct the reply to be made to the Medical Society of the State of New York:

Constituent Association of	No. Counties in State.	No. Component Societies in State Assn.	No. Co.'s in State Not Org'z'd 1912	No. Co.'s in State Not Org'z'd 1913	No. Physicians in State (3d Ed. Directory)	No. of State Members Association 1912	No. of State Members Association 1913	No. A. M. A. Members in State	No. Subscribers to Journal in State.*
Alabama ..	67	67	...	...	2,418	1,646	1,617	370	230
Arizona ...	14	10	6	4	247	128	139	107	53
Arkansas ..	75	65	11	9	2,596	954	994	376	190
California .	58	37	21	21	4,767	2,232	2,445	1,765	811
Colorado ..	62	25	22	25	1,772	846	740	542	230
Connecticut	8	8	...	...	1,564	842	864	483	196
Delaware .	3	3	...	...	246	105	102	52	33
Dist. of Col.	.....	.....	...	...	1,350	580	587	308	177
Florida ...	48	21	21	27	974	329	353	213	134
Georgia ...	148	73	81	60	3,022	1,408	1,106	416	409
Idaho	27	2	10	15	420	103	95	87	99
Illinois	102	100	2	...	9,988	5.647	5,275	3,678	1,974
Indiana ...	92	86	6	4	4,984	2,146	2,392	1,125	449
Iowa	99	94	2	3	3,653	1,978	1,653	1,150	564
Kansas	105	72	22	23	2,688	1,358	1,370	652	329
Kentucky ..	120	115	5	3	3,601	2,090	2,250	657	243
Louisiana ..	64	41	18	21	1,930	1,002	957	407	284
Maine	16	15	1	1	1,176	606	623	298	97
Maryland ..	24	22	2	2	1,972	1,106	1,081	609	425
Mass.[1]	14	18	...	...	5,648	3,393	3,450	1,898	930
Michigan ..	83	60	3	4	4,104	2,227	2,232	1,158	457
Minnesota .	86	39	5	5	2,262	1,319	1,426	1,056	353
Mississippi .	79	49	9	7	2,009	995	875	254	210
Missouri[2] ..	114	99	18	9	6,037	2,695	2,938	1,571	505
Montana ..	32	14	17	18	512	229	243	150	120
Nebraska ..	92	58	23	25	1,796	957	832	516	264
Nevada	16	5	10	11	144	69	82	58	24
N. Hampsh.	10	10	...	...	704	536	502	221	46
N. Jersey ..	21	21	...	...	2,884	1,443	1,483	858	289
N. Mexico .	26	14	12	11	430	164	175	118	69
New York .	61	57	3	4	14,815	7,088	7,330	4,069	1,517
N. Carolina	100	85	6	10	1,849	1,126	1,115	269	221
N. Dakota .	46	14	5	10	594	388	350	263	77
Ohio	88	88	...	...	7,513	3,328	3,495	1,923	786
Oklahoma .	77	66	12	5	2,620	1,089	1,111	427	230
Oregon	34	11	3	6	1,041	426	393	270	228
Penn.[3]	67	63	4	4	11,345	5,724	6,014	3,194	1,325
Rhode Isl.[4]	5	6	...	...	751	377	370	267	180
S. Carolina	43	38	5	7	1,275	688	712	244	195
S. Dakota .	65	7	8	8	651	272	292	205	125
Tennessee ..	96	61	33	35	3.338	1,373	1,380	499	294
Texas	248	134	85	91	5,888	3,081	3,059	1,014	474
Utah	27	7	21	20	427	228	234	156	76
Vermont ..	14	11	3	3	679	389	387	164	80
Virginia[4] ..	100	.....	...	...	2,359	1,488	1,591	470	272
Washington.	39	20	19	19	1,630	819	874	540	310
W. Virginia	55	32	10	12	1,639	941	865	419	157
Wisconsin .	70	53	2	...	2,652	1,726	1,700	1,057	511
Wyoming ..	21	5	9	11	235	118	121	60	51
Canal Zone	.....	.....	...	...	107	72	86	32	10
Hawaii ...	.....	.....	...	...	123	79	73	26	10
P. Islands .	.....	.....	...	...	691	108	105	25	52
Totals ..	2,961	2,001	545	553	138,120	70,021	70,538	36,746	17,375
Honorary members and members listed at foreign addresses								78	.....
Members in government services								1,089	.....
Journals to foreign addresses, government services, etc.								.....	2,264
Grand totals								37,913	19,639

* Not including members of American Medical Association.

NOTE.—The number of members of the different associations stated in this table is in accord with the membership of the several associations as they were reported to the Secretary on May 1, 1913.

The lack of an effective uniform system for reporting the membership of the state associations accounts for whatever discrepancies this table shows and detracts from the value of the statement.

Component societies are those societies which compose the state association. A component society may include one county or more.

1. These state associations are divided into district societies, and these are listed in the table as component societies. Some of these districts are smaller and some larger than the county, the county lines being ignored.

2. The state of Missouri has 114 counties and the city of St. Louis.

3. Provision is made for the physicians in each of these counties to join the component society in an adjoining county.

4. Virginia has not adopted the plan of organization. Hence, strictly speaking, it has no component county societies. Members join the state society direct.

NEW YORK, April 3, 1913.

DEAR DOCTOR CRAIG:—

I am returning to you herewith enclosed the certificate form but I have taken the liberty of changing it in some respects to conform to the By-Laws of the American Medical Association.

Our delegates are elected as delegates. Our alternates are also elected. No particular alternate is elected for any particular delegate. In other words, if there is any delegate elected, absent, he may designate any alternate who is present to act for him. You will see that this is in conformity with the By-Laws.

The standing rules of any particular House of Delegates, according to law, has no binding effect on any later House of Delegates thereof, as you doubtless are aware.

It would seem almost an absurdity to urge that because both a delegate and his particular alternate under your certificate plan was absent, therefore that State organization would be deprived of a representative. No statute of any State would sanction any such arbitrary rule.

Our State Society at the last annual meeting elected as delegates Drs. Johnson, Madill, Murray, Phillips and Warbasse. We also elected as alternates for these delegates Drs. Ullman, Neuman, Morton, Jones and Carr. If any delegate is absent, he has a right to designate any alternate to represent him.

Our delegates and alternates elected this year are all elected for two years pursuant to the By-Laws.

In accordance herewith I have simply filled in the names of the delegates elected, and also filled in the names of the alternates elected.

If it is your understanding that there is impropriety in this proceeding, please advise me at once, as I desire to appeal to the Judicial Council.

Please let me hear from you by return mail, as this is a serious matter and must be given instant consideration.

With assurances of regard, I beg to remain,

Cordially yours,

WISNER R. TOWNSEND, Secretary.

P. S.—Please send me a certificate blank so that I may, after the new men are elected, fill them in in the proper manner, as we have always done heretofore.

CHICAGO, April 7, 1913.

Dr. Wisner R. Townsend, Secretary, Medical Society of the State of New York, 17 W. Forty-Third St., New York City

MY DEAR DOCTOR TOWNSEND:

I thank you for the programs of the annual meeting of the Medical Society of the State of New York and also for the annual reports.

Replying to your letter of the 3d, I am returning the certificate of election which I formerly sent you, together with a blank form. I note your statement that the alternates elected by the Medical Society of the State of New York are not assigned to definite delegates. I would suggest that the Council of your State Society do so designate your alternates in order that the report of your delegates may comply with the standing rules of the House of Delegates of the American Medical Association. These standing rules were adopted by the House of Delegates at the Atlantic City meeting and remain in force until the House rescinds or modifies them. If the Medical Society of the State of New York feels that the rules are not just, it is within its province to protest against the rules and to ask the House to reconsider the action which established the rules. Until some such action is taken, these standing rules are to be considered as being an amplification or explanation of the By-Laws. Your statement, "the standing rules of any particular House of Delegates, according to law, has no binding effect on any later House of Delegates thereof, as you doubtless are aware," is not in accordance with Roberts' Rules of Order which state:

"These are called Standing Rules and can be adopted by a majority vote at any meeting. After they have been adopted, they cannot be modified at the same session except by a reconsideration. At any future session, they can be suspended, modified, or rescinded by a majority vote."

This statement is my authority for stating that a standing rule remains in force until the body which constituted it annuls or modifies the rule. Of course, I shall be glad to present the credentials in any form you desire to have them presented but if you depart from the approved form, the acceptability of the credentials must be passed upon first by the Credentials Committee and later by the House of Delegates before seating the delegation from New York. I doubt whether the Judicial Council has authority in this matter but I will be glad to refer the question to the Judicial Council if that is your wish.

Trusting that you will be able to use the approved form for reporting alternates and delegates, I am

Very truly yours,

ALEXANDER R. CRAIG, Secretary.

NEW YORK, May 22, 1913.

Dear Doctor Craig:

I presume that the blank cards you sent us for delegates are to be filled out by us. We are entitled to eleven delegates, but you only sent us ten cards and one of these was sent to Dr. Warbasse by mistake, as he is not going and we wanted his certificate for

his alternate. Therefore, please send me half a dozen of your blanks and we will have them properly signed and given to the delegates and to alternates where delegates cannot go.

I beg to call your attention to the marked copy of THE JOURNAL, which is mailed with this letter. It explains the matter very fully.

Very truly yours,

W. R. TOWNSEND, Secretary.

CHICAGO, May 26, 1913.

Dr. Wisner R. Townsend, Secretary Medical Society of the State of New York.

My Dear Doctor Townsend:

Replying to your letter of the 22d, I regret that we did not send you a supply of cards sufficient for each of the delegates from the Medical Society of the State of New York. I enclose additional cards for your use.

You will kindly note that these cards should be issued to the delegates only. In case a delegate finds that he cannot attend the meeting of the House, he should fill in the form authorizing his alternate to act in his place.

The marked copy of the *New York State Journal of Medicine* has just reached me. Your letter of April 3 and a record of the minutes of the action of the House of Delegates of the Medical Society of the State of New York concerning these standing rules will be presented to the House of Delegates at the coming meeting of the American Medical Association.

Very truly yours,

ALEXANDER R. CRAIG, Secretary.

The following from the *New York State Journal of Medicine*, May, 1913, is the marked passage referred to in Dr. Townsend's letter of May 22:

In connection with the election of delegates to the American Medical Association, the Secretary stated that the blanks which had been forwarded to the Society to be filled out, signed by the President and Secretary of the State Society, and returned to the Secretary of the American Medical Association, 535 Dearborn Avenue, Chicago, including the certificate of election of delegates, contained the following clause, "Note the standing rules printed on the back of this form." The printed form was as follows:

Chapter III., Sections 1 and 2 of the By-Laws of the American Medical Association and the standing rules adopted by the House of Delegates at the 1912 session for the guidance of the Committee on Credentials are quoted here and the Secretary continues:

And on the opposite side of the page were the delegates and alternates arbitrarily arranged by the A. M. A. as follows: Delegate, William D. Johnson; Alternate, Walter Lester Carr; Delegate, Grant C. Madill; Alternate, Owen E. Jones; Delegate, Dwight H. Murray; Alternate, Rosalie S. Morton; Delegate, Wendell C. Phillips; Alternate, Leo. H. Neuman; Delegate, James P. Warbasse; Alternate, Julius Ullman.

The attorney for the State Society, Mr. Lewis, was consulted as to the legality of these papers because of the fact that the standing rules adopted at Atlantic City conflicted with the by-laws, which was contrary to Roberts' Rules of Order, which are in force in the A. M. A. The Secretary sent a protest to the A. M. A., but so far has not received any definite reply in the matter, except that Dr. Craig believes the standing rules to be right and proper. The opinion of Mr. Lewis is herewith appended.

April 26, 1913.

Dr. Wisner R. Townsend, Secretary of the Medical Society of the State of New York, 17 West Forty-Third Street, New York City.

MY DEAR DOCTOR SECRETARY:

I have your letter of request for an opinion as to the effect of the American Medical Association's resolutions in regard to the election of delegates which you sent me.

In my opinion these resolutions conflict with the by-laws of the American Medical Association, and the resolution also conflicts with the provisions of Roberts' Rules of Order, which the American Medical Association accepts as its governing authority in parliamentary matters.

The delegates elected at the last annual meeting of the Medical Society of the State of New York were elected pursuant to the by-laws of the American Medical Association, and any resolution passed at the last annual meeting of the American Medical Association would of course have no binding effect upon the delegates already elected. A different question is presented with reference to the delegates to be elected at this annual meeting of the Medical Society of the State of New York.

I am of the opinion that the delegates to be elected at this present meeting of the Medical Society of the State of New York, should be elected in conformity with the resolution passed, although it contravenes the by-laws of the American Medical Association, and although in my opinion such a resolution is absolutely illegal. But it is proper for me to add that the delegates from the State of New York should immediately see to it that this resolution is rescinded, because it is likely to interfere with the proper representation from the various states, is in contravention of the Statute Law of the American Medical Association, and violates even Roberts' Rules of Order.

The American Medical Association's by-laws and constitution provide ample means of changing its by-laws, and they should not be changed in such an informal way as by the adoption of a resolution.

To enter into an argument as to the importance of attacking this resolution at the next meeting of the American Medical Association, is unnecessary. The meeting place of the national body in various states makes it imperative that there be no hard and fast rule with reference to delegates and their alternates. Any alternate should be allowed to represent any delegate, otherwise it might often occur that a State would be deprived of representation. The sooner the New York delegates attend to this matter, the better for the interests of the American Medical Association.

Faithfully yours,

JAMES TAYLOR LEWIS.

DR. WENDELL C. PHILLIPS: I think it would be well for the secretary to give us his views regarding this communication from the secretary of the American Medical Association.

THE SECRETARY: I will endeavor in a few words to explain this action, although in some respects it is unexplainable. In the first place, the By-Laws of the American Medical Association give to the different state societies the right to elect delegates to the American Medical Association, provided they had been members for two years of that body, and stated that the delegates and alternates should be elected for two years. We have complied strictly with the By-Laws. The Committee on Credentials at the last meeting of the American Medical Association, held in Atlantic City, had some trouble with delegates from Illinois, one man having no less than three alternates with certificates, all duly signed and vouched for. These vouchers were presented to the Committee on Credentials and it put them in a very embarrassing position, and to prevent a repetition of such a state of affairs a resolution was then introduced in the House of Delegates on the last day formulating these new rules which will prevent delegates in the future from designating their alternates. Now, they come to us and arbitrarily assign certain alternates to certain delegates. This arrangement the Secretary of the American Medical Association justifies by these rules, which in my opinion is no justification whatever, because if the rules are invalid and illegal, they are not binding. Any law is a law, however, until it is repealed or declared unconstitutional by some higher authority, and the Medical Society of the State of New York not being a higher authority can only make a protest. The American Medical Association through its House of Delegates, can repeal these Rules, and we shall have to obey them until they are repealed. In the meanwhile we will have to designate each individual as the alternate for a particular member. In the place of Dr. Carr, we will have to elect some one for alternate of Dr. Johnson, of Batavia, until these rules are set aside.

In electing delegates I would like to make the suggestion that the delegate receiving the highest number of votes shall be No. 1, and so on down to the last delegate; that the House then proceed to elect the alternates, and the alternate receiving the highest number of votes shall be declared the alternate for the delegate No. 1 and so on. This will simplify the election.

DR. PHILLIPS: I move we adopt the suggestion of the secretary. Motion seconded and carried.

THE PUBLIC HEALTH SERVICE

By an act of Congress, approved Aug. 14, 1912, the name of the Public Health and Marine Hospital Service was changed to the Public Health Service. Consequently, the House of Delegates should direct that wherever in the Constitution and By-Laws of the Association the name of this service appears, it be changed to the new title.

PETITION TO CREATE A SECTION

I present a petition to create a Section on Gastro-Enterology and Proctology, in the form of several applications which have been received at the office of the Secretary.

MEDICAL ASSOCIATION OF PORTO RICO

I have the honor to submit a petition from the Medical Association of Porto Rico addressed to the House of Delegates of the American Medical Association praying that the Medical Association of Porto Rico be accepted as a constituent branch of the American Medical Association.

Respectfully submitted,

ALEXANDER R. CRAIG.

Dr. W. W. Grant, Colorado, Chairman, presented the report of the Board of Trustees, which was referred to the Reference Committee on Reports of Officers.

The report is as follows:

Report of the Board of Trustees

To the Members of the House of Delegates of the American Medical Association:

Gentlemen:—It is with feelings of deep regret and sadness that we record in our report to-day the death of our colleague, Dr. C. A. Daugherty, which occurred at his home in South Bend, Ind., on April 23. Last June he was elected for the second time a member of the Board of Trustees. In his four years' service he won the regard and loving esteem of all members by his conscientious, faithful devotion to duty and to every measure contributing to the honor and the progress of the Association. His gentle, kindly nature and ethical bearing endeared him to all, and the Association and the profession mourn the loss of one who deserved the confidence and esteem accorded him by his professional brethren.

It is a pleasure to report favorable and, in the main, very satisfactory progress in Association work during the past year.

The establishment of a surgical journal is still under consideration by a committee of the Board of Trustees.

The Council on Health and Public Instruction is doing an educational work of the greatest interest and importance in public health matters. Its cooperation with, and use of, clubs and non-medical organizations in creating a public interest and demand for medical lectures and information on public health matters is worthy of the commendation and endorsement of the profession.

The Committee on Medical Education continues its active labors in behalf of fewer and better schools, better standards of admission, more scientific instruction and a higher class of men for the practice of medicine and surgery. More detailed and complete information will be embodied in the special reports of these committees.

SECTION PAPERS

In the Trustees' report last year your attention was called to our action relative to the length of section papers in THE JOURNAL. It was stated that the Board had passed a resolution limiting papers read before the sections to four pages of THE JOURNAL, and the discussions by each speaker to five hundred words, unless otherwise ordered by the Publication Committee of the Board. This action was taken on account of the large number of papers sent to THE JOURNAL immediately after the annual meeting of the Association.

The conditions during the past year, however, have been aggravated by the increased number of sections. As will be remembered, in 1910, the Section on Genito-Urinary Diseases, and in 1911, the Section on Hospitals were created. The former did not hold a meeting at Los Angeles, so that last year, 1912, two new sections took part in the scientific work. This, together with the fact that all the sections seemed to be increasing the number of papers, made conditions worse than in any previous year. For instance, in 1908 there were 294 papers read before the sections; in 1909, 290; in 1910, 315; in 1911, 251; and last year, 411. Thus in 1912 there were nearly 100 in excess of those read at St. Louis in 1910, and 160 more than were presented at Los Angeles in 1911.

Last year you created another section—that on Orthopedic Surgery This will still further increase the number of papers to be published.

The Board feels that you should be acquainted with these conditions, that you may realize its meaning so far as THE JOURNAL is concerned. This large number of papers makes it impossible to complete their publication within a reasonable length of time. This is a serious disadvantage both to THE JOURNAL and to the authors of papers. After four or five months, some papers are stale and the reader does not feel that he is getting up-to-date matter; especially is this true when he sees by the footnote that the article was read four, five or six, and possibly seven or eight months before. The author, too, becomes dissatisfied and impatient at the delay. But there is a more important point, and that is the fact that in the endeavor to crowd section papers through, little space is left in THE JOURNAL for voluntary articles. This is a serious handicap because THE JOURNAL is compelled to reject excellent, practical, timely papers; and more especially because the hackneyed phrase "returned on account of lack of space" impresses some with the idea that there is never any space for them, and they occasionally take offense. Thus many excellent men hesitate to submit a second paper when one has been returned. Of course, it is realized that on the success of THE JOURNAL depends the possibility of continuing much of the excellent work the Association is doing, especially so far as finances are concerned. Therefore the Board suggests that the House of Delegates give the subject serious consideration before it establishes more sections.

In considering this matter it should not be overlooked that the problem of publication of the papers in THE JOURNAL is not the only point of view from which to consider a possible increase in the number of sections. Aside from the fact that the larger the number of sections the more papers, the House of Delegates is reminded that even when there were only twelve sections there was often difficulty in providing suitable accommodations for the meetings. With the additional three sections recently created it will be still more difficult in some cities to secure the necessary meeting-places. Further, the danger of making the section work top-heavy, the unnecessary subdivision of specialties, and the duplication of subjects by two or more sections, are only some of the phases of this matter that are worthy of your attention.

LIMITING NUMBER OF PAPERS TO THIRTY

The Board adopted a resolution at its February meeting, recommending that the number of papers to be read in any one section, at the annual meeting, shall not exceed thirty. It is the general opinion of those who have given the matter thoughtful consideration that most medical societies—the sections included—are handicapped in having too many papers, and not giving sufficient time for discussions. Some of the sections, from experience, appreciated this fact, and, on their own volition, have limited the number of papers much below that authorized in the by-laws.

The Board recommends that "thirty" be substituted for the word "forty" in Section 12, Article XI, of the By-Laws.

ENDORSEMENT OF PAPERS BY CHAIRMAN OF SECTION

Section 5, Chapter XI, of the By-Laws is not sufficiently definite as to the composition of the Executive Committee that shall examine and pass on the section papers. The Board recommends that this by-law be amended so as to make it definite, and that the retiring chairman—that is, the one who presides during the session—should be one to pass on and approve, or disapprove, the publication of the papers read. The Board therefore suggests that you consider the advisability of modifying the last sentence by inserting in parenthesis, after the word "committee" in the last sentence—"as constituted at the close of the annual session," and changing "The" to "This." The sentence would then read: "This committee (as constituted at the close of the annual session) shall examine and pass on all papers read before the section, and shall endorse for publication only those that are of scientific or of practical value, and which will reflect credit on the section before which they were read."

CHANGING SECTION SECRETARY EACH YEAR INADVISABLE

The Board feels that some of the sections are handicapped because of changing the executive officer—the secretary—every year. Those most interested and familiar with the subject are of the opinion that this is a mistake. An investigation of the matter will reveal the fact that in practically all successful medical societies—as well as in other organizations—the secretaryship is a more or less permanent office. The Board recommends that the House of Delegates take some action, either in the form of resolutions or otherwise, urging the sections to consider the advisability of making the secretaryship a more permanent office than it is now. The Board believes that this recommendation is of vital importance.

(*Minutes continued on page 1989*)

Medical News

CALIFORNIA

Personal.—Dr. and Mrs. Joseph Kurtz, Los Angeles, have started for Berlin.——Dr. L. Olivieri, Stockton, has returned after a trip to Italy.——Dr. R. Bremner Smith, San Francisco, against whom insanity proceedings were started three weeks ago, has been declared sane and discharged from custody.——Dr. William Henry Newell, San Francisco, is said to have been declared insane and committed to the Napa State Hospital.

Summer Home for Tuberculous Children.—A summer home has been established near Elmhurst by the Board of Women Managers of the Children's Hospital, San Francisco, for the eighteen patients in the Children's Hospital suffering from tuberculosis. The summer home has been given to the hospital by Mrs. Tay Danforth. There are, at present, three tent houses on the grounds to be used for sleeping quarters and one tent house for a treatment-room.

COLORADO

New Officers.—Denver Physicians' and Surgeons' Club: president, Dr. H. C. Brown; secretary, Dr. C. E. Cooper (reelected).

Personal.—Dr. G. F. Wentch, Montrose, fractured two ribs and a clavicle and sustained internal injuries in a recent runaway accident.——Dr. J. M. Perkins, Denver, has been elected commissioner of social welfare. His duties include the charge of the city and county hospitals and of the local bureau of health.

DELAWARE

Sanatorium Dedicated.—The new administration building of the Hope Farm Tuberculosis Sanatorium was dedicated May 10. The building has cost $90,000. After the dedication exercises, the guests inspected the building.

State Hospital Trustees Reorganize.—The annual meeting of the trustees for the State Hospital for the Insane, Farnhurst, was held June 5. Dr. E. R. Steele, Dover, took his seat as trustee and Dr. J. H. Wilson, Dover, was reelected secretary.

DISTRICT OF COLUMBIA

Personal.—Dr. F. M. Barnes, Jr., has resigned as clinical director of the Government Hospital for the Insane, Washington.——Dr. William Henry Syme, who underwent abdominal section recently at the Emergency Hospital, is reported to be convalescent.

Emergency Hospital Fund Assured.—During the first half of the twelve days' campaign for raising $300,000 for the erection of the new Emergency Hospital in Washington, $73,384.05 was obtained. Permission has been given by the President to solicit subscriptions from employees in governmental departments.

FLORIDA

Hospital Closes for Summer.—Dr. Bohannon's Hospital and Sanitarium, Daytona, will be closed during the summer.

New State Board.—The newly appointed State Board of Health met in Jacksonville, June 10, and organized by electing F. J. Fearnside, Palatka, president. Dr. J. Y. Porter, Key West, was reelected secretary and state health officer and Dr. Hiram Byrd, Jacksonville, was reelected assistant. The new board consists of G. G. Memminger, Lakeland; F. J. Fearnside, Palatka and Dr. S. R. Mallory Kennedy, Pensacola. The state health officer was directed to secure and appoint reputable graduate physicians in Jacksonville, Pensacola, Tampa and Key West to be known as and to be assistant state health officers in their respective districts.

GEORGIA

Commencement.—The Medical College of Georgia, Augusta, at its annual commencement, graduated a class of thirty-four. In addition to the commencement exercises, alumni clinics were held, conducted by the members of the faculty.

Examiners Hold Election.—At the annual meeting of the Board of Medical Examiners for Georgia, Dr. J. W. Palmer, Albany, was elected president and Dr. N. Peterson, Tifton, vice-president. Dr. C. T. Nolan, Marietta, was relected secretary.

Personal.—Dr. L. C. Furr was shot in the abdomen during an affray near Crandall, recently.——Dr. A. P. Kemp, Macon, is ill with malaria in the Macon Hospital.——Dr. J. M. Crawford, Atlanta, has decided to remain in Vienna for eight months taking special courses.

Merger of Atlanta Colleges.—Authentic word has been received that the Atlanta College of Physicians and Surgeons and the Atlanta School of Medicine have been merged and will adopt the name of the Atlanta Medical College, a name held by one of the predecessors of the Atlanta College of Physicians and Surgeons.

ILLINOIS

Sanatorium Opened.—The Springfield Open Air Colony was opened under the auspices of the Springfield Tuberculosis Association, last week. The colony is located west of Springfield and is under the personal direction and ownership of Dr. George T. Palmer.

Resolutions Regarding Dr. Egan.—The State Board of Health at a special meeting held in Chicago, June 2, adopted resolutions setting forth that in the death of Dr. James A. Egan, the state has lost its foremost advocate of disease prevention, of sanitary education and legislation, of higher medical education, of interstate reciprocity in medical practice; eulogizing the vigilant zeal of Dr. Egan in the elimination of epidemics, his labor in making life more secure and his work in striving to place medical education, science and practice on a more exalted plane, and mourning the loss of an untiring fellow-worker and a much loved comrade and friend.

Chicago

Alumni Meeting.—At the annual meeting of the Rush Medical College Alumni Association held June 11, the following officers were elected: president, Dr. Arthur M. Corwin; vice-presidents, Drs. Joseph Z. Bergeron, John J. Stoll and Libni B. Hayman; necrologist, Dr. John Ritter; secretary, Dr. Charles A. Parker; treasurer, Dr. Morris L. Fishbein; chairman of editorial board, Dr. B. McPherson Linnell; chairman of fellowship committee, Dr. George H. Weaver.

Ice Commission Formed.—A recent ruling of the United States Public Health Service has been made demanding that all interstate carriers supply certified water and ice to be used in public drinking fountains, tanks, etc. Under this ruling the various ice and water companies are compelled to obtain certification of their ice and water to be used on steamboats and trains. Accordingly a commission, to be known as the Chicago Ice Commission, has been formed, composed of Drs. Ludwig Hektoen, director of the Memorial Institute for Infectious Diseases, Edwin O. Jordan, professor of bacteriology, University of Chicago, and Prof. John H. Long, professor of physiologic chemistry, Northwestern University, which will undertake the examination of ice, its source, transportation, delivery, etc., and certify the results when found satisfactory.

INDIANA

Hospital Reopened.—The city hospital, Peru, which was built in 1910 and closed for lack of funds, has been reopened through the efforts of a committee of women who expect to raise $5,000 for its maintenance.

New Officers.—Fourth Councilor District Medical Association at Columbus, May 29: president, Dr. William E. Thomas, Clarksburg; secretary, Dr. F. C. Denny, Madison. The next meeting will be held in Madison.——Ninth Councilor District Medical Society at Lafayette, May 15: president, Dr. W. R. Moffitt, West Lafayette; secretary-treasurer, Dr. Fred A. Dennis, Crawfordsville.

Personal.—Dr. W. A. Geckler, superintendent of the State Tuberculosis Sanatorium, Rockville, has sailed for Marburg, Germany.——Dr. M. J. Spencer has been elected president, and Dr. T. Victor Keene, vice-president of the Indianapolis Board of Health.——Dr. G. A. Whitledge, Anderson, has been appointed a member of the Indiana State Board of Registration and Examination in Optometry.——Dr. Oliver P. Graham, Jeffersonville, is reported to be critically ill with pleural pneumonia at Battle Creek, Mich.——Dr. Frank J. McMichael, Gary, is reported to be seriously ill in the Gary Hospital.——Dr. Henry C. Rogers, Rockville, has been exonerated of charges of criminal practice, the sheriff of the county stating that "there was at no time the least evidence to sustain the charge."

IOWA

Tuberculosis Hospital for Blackhawk County.—Plans have been prepared for the county tuberculosis sanatorium for Blackhawk County to be erected on the tract on which the detention hospital is being built. The new hospital will be provided with open wards.

New Officers.—Northeastern Iowa Medical Society at Cresco, June 5: president, Dr. George Kessel; secretary-treasurer, Dr. W. C. Hess, both of Cresco.——Des Moines Valley Medical Association, forty-second annual meeting at Ottumwa, June 5: president, Dr. Frank M. Fuller, Keokuk; secretary-treasurer, Dr. F. W. Bowles, Ottumwa (reelected).—Lynn County Medical Society at Cedar Rapids, June 4: president, Dr. R. B. Hasner, Cedar Rapids; secretary, Dr. Frank S. Skinner, Marion.——Dayton County Medical Society reorganized at McGregor, June 9: president, Dr. H. H. Clark, McGregor; secretary-treasurer, Dr. J. D. Brownson, Monona.——Marshall County Health Association at Marshalltown, May 14: president, Dr. Pauline Myers Townsend-Hanson.

Personal.—Dr. P. O. Convery, Waterloo, is reported to be seriously ill at a sanatorium in Des Moines.——Dr. G. P. Reed, Davis City, has returned from Vienna.——Dr. Paul W. Van Meter, city physician at Atkins, is to spend the coming year in China as a medical missionary of the Presbyterian Board. ——Dr. Albert R. Wilsey, Keokuk, charged with manslaughter the result of criminal negligence after an abdominal section, has been found not guilty.——Drs. D. Macrae, C. A. Hill, A. P. Hanchett, F. W. Dean and F. Earl Bellinger have been selected as the public health committee of the Commercial Club, Council Bluffs.——Dr. G. H. Sumner, Des Moines, has been reelected secretary of the State Board of Health.——Dr. and Mrs. R. O. Early, Buxton, have started for Europe.——Dr. John Charles Ryan, Des Moines, on May 23, was found not guilty of operating his automobile in a careless and imprudent manner.

KANSAS

Colleges Merge.—Authentic information has been received stating that at the close of the present session the Kansas Medical College, Medical Department of Washburn College, will be merged into the University of Kansas School of Medicine.

Personal.—Dr. Fred A. Forney has succeeded Dr. J. E. Foltz as superintendent at the State Industrial Reformatory, Hutchinson.——Dr. J. A. DeMoss, Thayer, was seriously injured in a collision between his automobile and a railway motor car, May 14.——Dr. James Faulkner, Lansing, has succeeded Dr. S. L. Axford, Lansing, as physician to the State Prison, Leavenworth.——Dr. S. L. Axford, formerly prison physician at Leavenworth, has been appointed superintendent and physician-in-charge of the Evergreen Place Sanitarium and Hospital, Leavenworth.

MARYLAND

Physician Exonerated.—In the case of Boyd Buey versus Dr. William F. Twigg, Cumberland, for damage for alleged malpractice in the matter of a fracture of the arm at the wrist, the attorneys for the plaintiff nolle prossed the case at Hagerstown, June 5.

Gift to State Tuberculosis Association.—The Maryland Jockey Club has given $10,000 to the State Association for the Relief and Prevention of Tuberculosis and has promised to make a similar gift annually, hereafter. Dr. H. Warren Buckler and Gordon Wilson, both of Baltimore, are named as commissioners for the disbursement of the fund which is to be used for the employment of visiting nurses of Baltimore County; for the maintenance of free beds in tuberculosis hospitals, for the relief of families impoverished by the disease, and for providing free luncheons for public school children improperly nourished or with tendencies toward tuberculosis.

Baltimore

Medical Certificates before Marriage.—A meeting was held June 1 in the interest of the medical endorsement of marriages under the auspices of the Social Hygiene Society. Local clergymen of the city and Drs. Lewellys F. Barker and Donald R. Hooker discussed the subject. The Social Hygiene Society has endorsed the resolution passed by the Episcopal Diocese of Maryland, and all clergymen of that body have pledged themselves to encourage the requirement of medical certificates from all persons who apply to them to be married.

MASSACHUSETTS

Personal.—Dr. Roland W. Brayton, Dorchester, Boston, was seriously injured in a collision between his automobile and a street car, May 26.——Dr. J. Arnold Rockwell, Cambridge, has succeeded Dr. F. W. White as medical advisor of the Massachusetts Institution of Technology, Boston.

Hospital Notes.—Carney Hospital, Boston, celebrates its semicentennial this month.——The New Melrose Hospital was formally dedicated May 30. The building has cost about $20,000, is two stories in height and of cement construction. ——The Board of Charity has granted a charter to the incorporators of the Wing Memorial Hospital, Palmer, and it is planned to have the hospital ready to open September 15.—— The workers who canvassed the North Shore towns, May 31, collected $6,000 for the North Shore Babies' Hospital, Salem. ——The city council of Boston has adopted a loan order for $298,000 for additional buildings for the City Hospital.

MICHIGAN

State Board Election.—At the annual meeting of the State Board of Health at Lansing, Dr. Victor C. Vaughan, Ann Arbor, was reelected president and Dr. Thomas M. Koon, Grand Rapids, was elected vice-president.

Health Train to Tour State.—Arrangements have been made for a State Health Train under the personal direction of Dr. Robert L. Dixon of the State Board of Health, to leave Lansing, August 4, for a tour of the entire lower peninsula. The train will contain at least three exhibit coaches, and pictures, charts and models will be shown and demonstrations will be made, teaching the principles of disease prevention and setting forth the importance of good health.

New Staff for United Benevolent Association Hospital.—Dr. J. B. Griswold has been appointed honorary chief of staff, Dr. Alexander M. Campbell, chief of staff, Dr. Francis J. Lee, vice-chief and Dr. A. Verne Wenger, secretary of the new United Benevolent Association Hospital, Grand Rapids. Dr. Thomas M. Koon has been made chief of the medical department; Dr. William G. Young, chief of the surgical department; Dr. Mortimer E. Roberts, chief of the department of abdominal surgery and gynecology; Dr. Earl Bigham, chief of the department of obstetrics; Dr. Roy T. Urquhart, chief of the department of ophthalmology and otology; Dr. A. V. Wenger, anesthetist; Dr. Charles E. Hooker, dermatologist, and Dr. William Northrup, bacteriologist of the hospital. The consulting staff is composed of Drs. Orris E. Herrick, William Fuller, Malcolm C. Sinclair, Daniel S. Sinclair, Joseph B. Griswold, Frances A. Rutherford, James O. Edie and Homer C. Brigham.

MISSOURI

Secretaries Met at St. Louis, Not at Joplin.—The Society of Secretaries of County Medical Societies of Missouri held its annual meeting in St. Louis and not in Joplin, as was erroneously stated in THE JOURNAL, May 24, p. 1648.

New Officers.—North Missouri Medical Association at Marion, June 5: president, Dr. Ed S. Smith, Macon; recording secretary, Dr. C. W. Reagan, Macon; corresponding secretary, Dr. A. L. Cambre, Atlanta. The next meeting will be held in Moberly.——Ray County Medical Society at Richmond: president, Dr. Robert Sevier; secretary, Dr. L. D. Green, both of Richmond.

Personal.—Dr. M. O. Biggs, Bowling Green, has succeeded Dr. George Williams as superintendent of the Fulton State Hospital. Drs. E. F. Evans, Columbia, Z. T. Knight, Monticello, and Hermon S. Major, Hardin, assistants on the staff, have also reported for duty.——Dr. T. A. Coffelt has been elected president of the Springfield Hospital Association. The other officers are Drs. D. B. Farnsworth and H. S. Hill, vice-presidents; Dr. J. R. Boyd, secretary, and Dr. Lee Cox, treasurer.——Dr. Russell Hodge, night superintendent of the Kansas City General Hospital, left for Vienna, June 20.——Dr. James E. Logan has resigned as a member of the park board of Kansas City.——Dr. G. E. Scrutchfield, Marshall, has been elected superintendent of State Hospital No. 4, Farmington. ——Dr. C. Lee Woolsey, Braymer, has been appointed assistant physician at State Hospital No. 2, St. Joseph.

St. Louis

Cornerstone Laid.—With simple ceremonies, the cornerstone of the Washington University Medical Department was laid, May 17. The scheme as planned is for a group of buildings including the medical school proper, the Barnes Hospital and the Children's Hospital. Robert S. Brookings, who donated $1,000,000 to the school, delivered an address and Rev. James W. Lee laid the cornerstone.

Commencement Exercises.—At the eighty-fourth annual commencement of the St. Louis University School of Medicine, June 5, a class of sixty-seven received degrees and the honorary degree of Doctor of Medicine was reinstated and conferred on Dr. Caleb Winfrey, Kansas City, a graduate of the school in the class of 1847, "as a just and proper recognition of his sixty-six years of service to humanity in the medical profession."

NEW YORK

New Officers.—Medico-Chirurgical Society of Central New York at Syracuse, June 5: president, Dr. E. G. Kern, Herkimer; secretary-treasurer, Dr. E. A. Gayde, Utica (reelected).

Personal.—Dr. Arthur J. Bedell has been appointed attending opththalmic and aural surgeon to the Albany Hospital.——Dr. Andrew F. Sheldon, Lyons, for sixty-three years a practitioner, is reported to be seriously ill at his home.——Dr. Raymond F. Kieb, Dannemora, has been appointed superintendent of the Matteawan State Hospital for the Criminal Insane, vice Dr. John W. Russell, resigned.——Dr. Edwin J. Kibbe, Saranac Lake, has been appointed resident superintendent of the Montgomery County Antituberculosis Hospital.

New York City

Policy of Carnegie Foundation.—Dr. Henry S. Pritchett, head of the Carnegie Foundation states that it is not the policy of the foundation with its fund of $140,000,000 for educational purposes, to crush sectarianism in colleges which cherish denominational tendencies. The resources of the Foundation may be used to whatever extent may be necessary in the crusade against the worthless medical schools throughout the country that operate under the names of worthy institutions under whose charters they take refuge.

Memorial to Bristow.—At a meeting of the New York Society of Anesthestists, the following memorial was drafted: "Algernon Thomas Bristow.—His editorial and practical hospital support of the advancement of the art of general anesthesia has time and again aroused the admiration and emulation of this body of anesthetists, and so active and influential has this work among his many followers been, that this society wishes itself placed on record as considering it monumentally constructive, and its cessation as a great loss to the surgical world."

Summer Campaign of Infant Salvation.—The announcement of plans for the summer has been made by the Babies' Welfare Association. These include active advertising work and systematic educational propaganda among mothers with a view to keeping the tenements clean. The prevention of deaths due to preventable conditions will be particularly emphasized. Up to June 1, there have been this year from all causes in this city a total of 5,852 deaths of babies under one year of age. This is a decrease of fifty-nine as compared with the same months of last year, a decrease that has been more marked in the Borough of Manhattan than in the other boroughs, there having been 108 fewer deaths than last year.

NORTH CAROLINA

The Hookworm Work.—Dr. B. E. Washburn, Rutherfordton, has been added to the field force engaged in the hookworm work of the State Board of Health. At present seven physicians are devoting their entire time to the hookworm dispensaries and up to date, eighty counties have made appropriations for this work. Eight of the counties which were first gone over have recently made additional appropriations for the purpose of having the hookworm dispensaries reopen in their territory.

Personal.—Drs. Hubert A. Royster, Raleigh, A. J. Crowell, C. M. Strong and J. P. Munroe, Charlotte, sail for Europe, July 3.——Dr. Albert Anderson has succeeded Dr. L. J. Picot as superintendent of the Central Hospital for the Insane, Raleigh.——Dr. L. B. McBrayer has been reelected health officer and city physician of Asheville.——Dr. William C. Horton, Raleigh, has gone abroad.——Dr. John S. McKee has been elected city physician of Raleigh.——Dr. F. T. Meriweather, Asheville, was operated on for appendicitis, June 7.

OHIO

State Board Changes.—At a meeting of the State Medical Board at Columbus, June 4, Dr. T. T. A. McCann, Dayton, was elected president and Dr. Lee Humphrey, Malta, vice-president.

Hospital and Dispensary Notes.—A tuberculosis dispensary has been opened at 8906 Woodland Avenue, Cleveland, by the Board of Health. The garden at the rear of the building is to be used as an open air retreat for patients.——Jewish physicians of Cleveland have opened a dispensary for patients of that faith at 2433 East Fifty-Fifth Street under the name of the East Side Free Medical Dispensary.——The new St. John's Hospital, Cleveland, is to be located on the site of the present hospital on Detroit Avenue and will have a capacity of 170 beds. The building will be four stories and a basement in height and of brick and terracotta construction.

Cincinnati

Flag Day Campaign.—Nearly $20,000 was raised by the Antituberculosis League at its Flag Day campaign, June 6.

Forchheimer Memorial.—The establishment of the Frederick Forchheimer chair of medicine has been decided on by the senate of the University of Cincinnati.——A memorial meeting of the Academy of Medicine was held June 9 in honor of Dr. Forchheimer at which many of his friends and associates paid tribute to his life and character.

Personal.—Dr. Harry Carroll has been appointed assistant physician to the Dayton State Hospital.——Dr. Martin H. Fischer, who has been seriously ill with appendicitis, is reported to be improving.——Dr. Charles A. Stammel, Jr., has been appointed a member of the staff of the contagious branch of the Cincinnati General Hospital.

PENNSYLVANIA

Commencement Week Clinics.—The School of Medicine of the University of Pittsburgh announces a medical program in connection with the commencement week exercises. Special clinics have been arranged at the Mercy, Children's, St. Francis' and the Eye and Ear hospitals on June 16 and 17 and lectures and demonstrations at the School of Medicine building on June 18.

Personal.—Dr. J. Clinton Starbuck, Media, was seriously injured June 10 when a motor car in which he was riding was struck by a trolley car. His left arm was so injured that amputation was necessary and it is feared that he also has internal injuries.——Dr. C. D. Wilkins, superintendent of the Wilkes-Barre City Hospital, has resigned to accept the position of superintendent of the Charity Hospital, New Orleans. Dr. J. T. Williams has been appointed associate surgeon and Dr. A. T. McClintock pathologist to the hospital. ——Drs. G. M. Phillips and Joseph T. Rothrock, West Chester, have been elected members of the board of managers of the Chester County Hospital.——Dr. Charles S. Rebuck, Harrisburg, sailed for the Mediterranean June 14.——Dr. George B. Kalb, Erie, has been reelected president of the Erie County Antituberculosis Society and Drs. J. W. Wright and F. P. McCarthy have been elected directors.

Philadelphia

Baby Saving Show.—A baby saving show opened in Conversation Hall, City Hall, June 16. The exhibit is held under the auspices of the Child's Hygiene Association and will continue for three months. Nurses and other attendants will be present to give information and there will be daily lectures.

Further Increase in Typhoid.—The outbreak of typhoid fever has not been abated and the health authorities, who thought it due to industrial establishments allowing "raw water" to seep through loose connections in the city's filtered water mains, have had to make a further investigation as twenty-nine of the fifty-five new cases reported during the week ended June 14, are in South Philadelphia, where broken connections have not been found.

Personal.—Drs. William J. Taylor, George A. Ross and Clarence Faries sailed for Europe, June 5.——Dr. Charles F Nassau had conferred on him the degree of Doctor of Laws by Villanova College, June 12.——Dr. Matthew Woods entertained the surviving members of the class of 1873 of the University of Pennsylvania at his home, June 17.——Dr. John S. Moffit, who has been seriously ill at his home from the effects of poison accidentally self-administered, is reported to be improving.

Social Work in Insane Hospital.—Assistant Director of Health and Charities Alexander Wilson has established a social service division at Blockley with Miss Harris, special agent of the department, at its head. She has four assistants and their work consists of learning the conditions responsible for the presence of the dependent children; making a social history of every case in the men's and women's psychopathic wards; visiting home of inmates to study conditions and causes. If it is found that a patient, suspected of insanity, can safely be put on parole for further developments, the social service division takes charge of the patient and reports progress.

GENERAL

Anticancer Society.—The executive committee of the organization recently formed to fight the increase of malignant disease in the United States, met in New York City, June 9, and selected as the name of the association, the American Society for the Control of Cancer.

Suspension of Manila Medical Bulletin.—In a communication dated Manila, April 23, the council of the Manila Medical Society announced that the publication of the *Bulletin of the Manila Medical Society* is suspended indefinitely in consequence of a fire which destroyed manuscript, plates and other property.

Southern Railway Surgeons Meet.—At the eighteenth annual meeting of the Association of Southern Railway Surgeons at Old Point Comfort, Va., June 3 and 4, the following officers were elected: president, Dr. R. J. Noble, Selma, N. C.; vice-presidents, Drs. J. F. Weathers, New Albany, Ind., W. P. Horton, New Wilkesboro, N. C., G. B. Thornton, Memphis, Tenn., and E. P. McCollum, Greensboro, Ala.; secretary-treasurer, Dr. J. U. Ray, Woodstock, Ala. (reelected), and member of the executive council, Dr. R. R. Shands, Washington, D. C.

Vessels from Guayaquil Fumigated.—On account of recent regulations of the port authorities of Guayaquil, Ecuador, under which vessels are required to anchor near the lower end of the city and thus become liable to infection from infected mosquitoes and because the officer of the United States Public Health Service on duty at Guayaquil has informed the chief quarantine officer of the Canal Zone that he has not the equipment for fumigating the larger vessels the fumigation of ships bound for Balboa from Guayaquil must be done after their arrival in Panama Bay, and after the fumigation, they must be held to complete a six-day quarantine.

FOREIGN

Malay States Medical Officer in the Canal Zone.—Dr. Malcolm Watson, at one time chief medical officer of the Estates Hospital Association, and senior district surgeon in the Federated Malay States Service and connected for thirty years with sanitary work in the Malay states, is visiting the Canal Zone to inspect the work being carried on there. On May 28 he gave a talk in the Mess Hall in Ancon Hospital descriptive of his work in the East.

Other Deaths Abroad.—Aside from the deaths reported by our foreign correspondents the following have recently occurred: Lyttleton Stewart Forbes Winslow, M.B., Cambridge, 1870, M.R.C.P. London, 1871; expert in lunacy and investigator of many famous criminal cases involving insanity; founder of the British Hospital for Mental Disorders; vice-president of the Medico-Legal Congress, New York, and chairman of the psychologic department; author of a manual on lunacy and of many other books and monographs on his specialty; editor for eight years of the *Psychological Journal*; died suddenly at his home in London, June 8, aged 69.

LONDON LETTER

(From Our Regular Correspondent)

LONDON, June 7, 1913.

Amendment of the Insurance Act

As shown by recent by-elections, the insurance act is very unpopular. Government interference with the friendly societies which have during more than half a century evolved a plan of providing benefit for illness is irritating to a people who have always preferred to do things by voluntary effort rather than by the compulsion of the state. The immense undertaking of providing a sick allowance and medical attendance for twelve million persons has been attended with considerable friction. The red tape of bureaucracy renders action painfully slow in a matter in which promptitude is required. Sick persons complain that before receiving "sick-pay" they have to wait as long as three weeks while various blanks are being signed and inquiries made, whereas under the friendly society system this process occupied only a few days.

Again, the number of insured persons entitled to free medical attendance who nevertheless decline it and prefer to pay the physician of their choice who is not on "panel" (that is, has not accepted service under the act) is very large. In London it is 400,000. At present they lose the advantage of the capitation fee provided for them. The government intends to bring in an amending act to remedy these and other grievances. The British Medical Association is taking the opportunity of bringing forward a number of professional grievances for remedy. Thus if an operation has to be done under an anesthetic no fee is provided for the payment of the anesthetist; the physician has to provide one himself. This is an encouragement for him to administer the anesthetic as well as to operate, which is admittedly a dangerous course. The association also objects to the regulation which obliges insurance doctors to attend patients for illnesses, such as venereal diseases, caused by their own misconduct. In the contract practice of the friendly societies a man was not entitled to attendance under these conditions. Another condition included in medical benefit, which was also excluded in the contract practice of the past, is miscarriage or abortion. The association also requests that the physician may be allowed to make a small charge for night calls so as to discourage unnecessary calls and that when an insured person has an income exceeding $800 he shall not be entitled to medical attendance under the act but be required to make his own arrangements. At present persons with an income of $800 are eligible for insurance, but once insured they remain so although they afterward attain an income above this. The association is strongly in favor of the appointment of medical referees to whom cases of alleged malingering shall be referred.

The International Congress of Medicine

For the first time there will be a section of radiology at the forthcoming International Congress of Medicine. The meetings will be held in a lecture theater in the School of Mines which can be completely darkened and will be provided with a lantern for the demonstration of lantern slides. Provision will also be made for the illumination of original negatives. In the museum a room will be set apart for the exhibition of transparencies. The following are some of the subjects down for discussion, with the reporters of each: "Radiography of the Stomach and Intestine," Dr. Holzknecht and Dr. Leonard; "Radiography of the Chest," Dr. Walsham and Professor Wenckebach; "Radiotherapy and Malignant Disease," Dr. Abbé and Dr. Kienböck; "Roentgen and Radium Therapy in Gynecology," a joint discussion with the section of obstetrics and gynecology, Dr. Albers-Schönberg, Dr. Foveau de Courmelles and Professor Krönig; "Radiography of Bones and Joints in Orthopedic Surgery," joint discussion with the section of orthopedics, Drs. Haenisch, Nové-Josserand and Redard.

The Government Inquiry into the Sale of Nostrums

Some remarkable disclosures were made at the last sitting of the committee appointed by the government to investigate the sale and advertisement of nostrums. The attention of the committee had been called to a series of advertisements in popular magazines of preparations. The advertisements took the form of recommendations of these goods by a number of women. These were sometimes given in the form of answers to correspondents, and sometimes without requests for information having been received. Mr. Sidney F. Ely, the secretary and manager of Dearborn (a limited liability company) which indulged in this practice, was called. He was asked by the chairman if he was prepared to answer certain questions. He said that he was not, and that the sole proprietor of the business, Mr. James D. Daniels, was in America. A lawyer then asked leave to appear for Mr. Ely, and the chairman suggested that he had better give evidence. He said that some time ago Mr. Daniels consulted him and since then the advertisements had not appeared in the form of answers. He was asked if he knew whether or not the following women, with high-sounding names which had appeared, existed: Mlle. Florence Gauthier, Mlle. Marcelle Rouvier, Mildred St. Aubyn, Mlle. Agnes Depres, Mlle. Marguerite Fournier, and Mme. Lucie Robert. He replied that he did not know. Mr. Ely was recalled and asked the same question. He said that he had formed the impression that Mildred St. Aubyn existed. Asked whether he could produce any letters from women bearing the names he said he would not do so as they were private! The chairman warned him that the committee had power to call on him to produce any papers he had. He then said that the advertisements had appeared six months ago and that the names might be *noms de plume*! The advertising in the form of these reading-advertisements were paid for on a higher scale than would be advertisements in display type.

PARIS LETTER

(From Our Regular Correspondent)

PARIS, May 30, 1913.

Personal

The Académie française has just awarded the Broquette-Gonin prize, amounting to $2,000 (10,000 francs) to Dr. Grasset, professor of general pathology and therapeutics at the Faculté de médecine de Montpellier, for his collective

works. This prize, intended to reward the author of a philosophical, political or literary work considered capable of inspiring love of the true, the good and the beautiful, has been awarded for the first time. Besides his works in pure science and medicine, Grasset is the author of numerous publications or studies of a psychologic, moral or social character.

The council of the Faculté de médecine de Paris has nominated Dr. Auguste Broca, *agrégé* of the school, and surgeon of the hospitals of Paris, for the chair of minor surgery.

The Faculté de médecine de Paris has awarded the Chataunillard prize, amounting to $400 (2,000 francs) for 1913, to Drs. Beurmann and Gougerot of Paris for their work on sporotrichosis.

The Use of Ether for Peritonitis

Dr. Morestin, surgeon of the Bichat Hospital, recently read an interesting paper before the Société de chirurgie in regard to two cases of serious peritonitis in which Dr. Témoin of Bourges obtained unexpected results by using ether to cleanse the peritoneum. Morestin has used ether since 1901 in peritoneal infections both as a disinfectant and as a preventive measure after suppurative salpingitis or an intestinal operation in which the contents of the digestive tube have leaked into the abdomen, etc., and also as a curative measure in dangerous peritonitis after the perforation of a gastric or duodenal ulcer and in acute appendicitis. He begins by cleaning the peritoneum carefully. Then he pours ether into the interior of the abdomen and into the pelvis and closes the abdomen. The ether begins to volatilize as soon as it is poured out. Abundant vapors are formed. The volatilization continues after the abdomen is closed, and a marked meteorism is produced. As soon as the ether is poured in, the patients have a short period of agitation; then they become calmer and an hour following the operation seem relatively quiet. There is a sort of torpor during which the pulse is excellent. Vomiting is much less frequent. In a word, the operative sequelae are very favorable. In most cases recovery is ideal.

The ether has several actions: It acts as a local antiseptic; it spreads throughout the abdominal cavity, the intestines and stomach are bathed in ethereal vapors and this appears to have no injurious effect on the serosa. No inflammatory reaction capable of causing adhesions occurs, and Morestin has never observed any accidents attributable to these vapors in the patients operated on. Ether has a tonic and antiseptic action.

Dr. Auvray recently operated on a patient aged 59 who had very serious peritoneal symptoms. He had double hernia with symptoms of strangulation, but the orifices were free, the sacs empty and the hernial regions not painful. Auvray made a medium laparotomy and found pus in the abdomen; the intestinal loops were red and covered with a false membrane. At one point was a little perforation situated on an intestinal loop which had become caught and which the patient had released himself. This perforation was sutured and about a quart of ether poured into the abdomen. Then it was sponged off before the abdomen was closed. Auvray says that he has never seen a patient in such a condition recover so easily.

BERLIN LETTER

(From Our Regular Correspondent)

BERLIN, May 23, 1913.

Personal

The attempts of the Vienna faculty to find a substitute for von Noorden among the German professors have so far been fruitless. After the refusal of von Krehl, who is usually proposed for a substitute whenever an opportunity arises, Adolf Schmidt of Halle is now being considered.

May 22, A. Baginsky, the Berlin psychiatrist, celebrated his seventieth birthday. On this occasion he was elected honorary member by the section on pediatrics of the Verein für innere Medizin und Kinderheilkunde.

A Titled Exponent of Friedmann's Methods

Americans may justly resent the opinion often expressed in both the lay and medical press, that Dr. Friedmann's great success was due to the fact that his dealings were with the American public and that nothing of the kind could occur in Germany. But in Germany also we have only too often had the experience that physicians, whose scientific importance and practical success would not stand the scrutiny of a conservative critic, have had many followers in the public. I will not refer to examples in the past, but will limit my remarks to an oculist who has been practicing in Germany for some time, and who has succeeded in gaining the reputation of a miracle-worker. In this instance it is a certain Count Wieser, whose former history is apt to lend him some fame in the eyes of the public. It is said that he used to be an army officer and was also active in a military campaign, and only later in life turned to a medical career. In some way he was able to gain access to the court circles and to treat at first some ladies of the court and others in high station, and, through their mediation, later on the empress herself. Although a wide democratic feeling prevails in Germany the knowledge of such social relations is apt to instil in many people an idea of the high importance of such a physician, and the suggestion thus created enhances their belief in the success of his treatment. Besides, Count Wieser impresses on his patients, as is generally the case only with charlatans and swindlers, the idea that his treatment is sure to succeed, and especially that he is able to cure senile cataract without operation. Notwithstanding the good results gained in surgery and their acknowledgment by the people, the fear of the knife is still sufficiently wide-spread to prompt patients to seek a physician who promises to cure with lotions and salves affections which all regular ophthalmologists can remove only by operation. This "miracle worker" is said to have cured not only senile cataract, but also detachment of the retina, atrophy of the optic nerve, glaucoma and similar troubles, and thousands of patients are ready to endorse his statements. The worst thing is that to my knowledge and according to the observation of experts whom I have questioned, not a single case of any real affection known to have been diagnosed by a scientific ophthalmologist has been cured by Wieser's treatment. And inasmuch as the titled oculist keeps his different procedures secret, has never published any scientific article or spoken before a medical society on his method, and has never submitted his patients to the examination of other members of the profession, the procedures of Wieser may justly be classified in a category not very different from that of Dr. Friedmann's.

The Fees of the Insurance Physicians

After the promulgation a short time ago of the standard regulations which will form the basis of the new Krankenkassen and will come into effect Jan. 1, 1914, the Leipsic League on its part also issued standard regulations, which were worked out in accordance with the resolutions of the Aerztetag at Stuttgart, and will form the basis for the dealings of the organization of insurance physicians with the new Krankenkassen. The most important change which the new arrangement of the imperial insurance law has caused and which is of the greatest influence on the fees of the insurance physicians is the requirement that the income limit for wage-earners to take out sickness insurance is to be increased from the $500 (2,000 marks) formerly required to $625 (2,500 marks), and the extension of the right of insurance to classes of higher economic position.

It would be the economic suicide of physicians to continue to treat these classes on the basis of the former minimal fee, which, for instance, in two great Berlin insurance organizations, amounts to 11 cents (45 pfennige) for one consultation and 50 cents (2 marks) for a quarter of the year. In the Reichstag the opinion was expressed by the representatives of almost all parties that in connection with the higher insurance limit, larger and more definite fees should be required of these financially better-situated classes, but no feasible method was provided for accomplishing this. For the Reichstag failed to establish a higher class than $450 (1,800 marks) and thus to include the insurable in the new class with an income above $500 (2,000 marks).

For this reason the Leipsic League, while abandoning the former demands, requires a differentiation of the fees for members of the insurance societies under $450 and those above $450. Different fees will also be required for different classes entitled to insurance, and the model contracts distinguish the following: (1) those who take up insurance voluntarily, that is, those who were not insured immediately before the time for enforcement of the new law; (2) those who abandon the obligatory insurance and continue a voluntary insurance. Among the latter, however, are many of those who have lost their position (on account of lack of work, etc.), where they held obligatory insurance, who wish to retain the benefits of the insurance until they obtain a new position. On the other hand, a large number of those who have reached a better social position and an income above $625—which circumstance frees them from insurance—continue the voluntary insurance. Both categories may now determine for themselves the wage-class in which they wish to be further insured, and by their belong-

ing to a class below $450 they are allowed to pay the smaller medical fee. It can be assumed that the first category, that is, those without employment who continue their insurance voluntarily, will find within six months a new position with obligatory insurance. For this reason the model contract provides that the higher fee shall be charged only to such members as continue their insurance longer than a half year, as otherwise it can be assumed that they have found better income.

It is provided that, if the income will justify it, the fee for the wage-class under $450 shall be not less than $1.25 (5 marks) for a single member and $3.75 (15 marks) for the insured family, including the member himself; for the obligatorily insured members with a higher income, 50 per cent. higher payment, and for voluntary members, with the foregoing exception, a 100 per cent. higher fee will be charged. The situation is quite different with classes who take up insurance voluntarily, without having been insured shortly before. These are usually: 1. Persons who would be amenable to obligatory insurance if their main occupation were of a higher grade; but they may join voluntarily if their work is performed outside of their regular employment and without any pecuniary returns, or if it is a temporary one; included in this class are persons who stand economically and socially higher on account of being independent because they own their business, or people with an independent income, pensioned officials, etc. 2. Employers of labor who employ regularly not more than two persons liable to insurance, and whose income is not over $650; in this class are the majority of the small and middle-class farmers, merchants and artisans in small and medium-sized cities. 3. The family dependents of the persons in the second class if they are employed by the head of the family, without any money compensation and without any personal industrial relation to his business, and if their entire income does not exceed $650. The income of the head of the family, which is to serve for the support and medical care, is not included. It is known how few persons there are in rural districts who have an income of $500, not speaking of more. It is the right of insurance of these classes which forms the chief danger for the physicians in the country and small cities, and threatens to deprive the rural districts of physicians when the insurance practice with its fees growing continually smaller becomes the only source of possible income and private practice entirely disappears, as the entire rural population is in the insurance class.

In order to eliminate this danger, it is proposed to refuse altogether to treat these groups as insurance patients, and according to Section 215.2 to limit the service of the insurance societies to furnishing sick-money or sick-care. So far as the free choice of physicians is concerned, this shall be required at least for groups of insured with income more than $450, and for those who voluntarily continue their insurance, although, to do justice to the existing conditions, a limited system of choice may still be carried on for the groups of the obligatorily insured.

By this wise limitation of the requirements in regard to the free choice of physicians, the German medical profession has shown strikingly that it is not inclined to "terrorize" its opponents and that no conflict with the insurance societies is intended.

BUDAPEST LETTER

(*From Our Occasional Correspondent*)

BUDAPEST, May 31, 1913.

Age Limit of Professorship in the University

The professorial board of the University of Budapest is of the opinion that a man's best days are over at 60 years of age. According to report several professors of the medical faculty and some of the other faculties will be asked to retire because they are beyond 60. Luckily those professors who will be retiring are all teaching theoretical subjects and thus the loss of the university will be reparable.

Death of Professor Korányi

The dean of Hungarian medical science, Frederic Korányi, died, May 19, after a long, eventful and laborious life. He died in his eighty-fifth year. Sixty years of his life were spent with incessant work in the field of medicine. He began his career as a county physician in Nagg-Kallo, Hungary, where he soon attracted the attention of the medical authorities so that in two years he was the chief physician of the county hospital (in 1863). His fame, however, went also beyond his county, so that in 1864 he received an invitation from the city of Budapest to fill the position of physician-in-chief of the city typhoid hospital. Less than two years later the professorial council of the university invited him to give trial lectures (this is the rule in the Hungarian universities) before medical students. His lectures had such an effect on his audience that the students applauded and sent a deputation to the professorial council, asking it to instal Korányi as professor as soon as possible. He was installed in 1866, and since then he has taught medicine (for to say that he "lectured" does not fully characterize his work, because he taught his students in the true sense of the word) until 1912, when he retired from teaching in order to devote himself to social hygienic reforms.

Korányi's fame and reputation could not remain within the boundaries of the country. He was well known in Germany where all the first-class medical societies hastened to invite him to hold lectures, and offered him corresponding memberships. In the German medical papers Korányi's name was often found as author of various articles or in references to him as authority on some clinical subject. Korányi was invited also to the chairs of foreign universities, but he never even considered leaving his country. Korányi was *persona grata* to the king. In 1876 he was given the title of "Advisor to the King"; in 1881 he received the Iron Cross; in 1894 he was enlisted among the noblemen and became "von Korányi"; in 1909 he was given a baronetcy.

Von Korányi and his clinic have worked on almost every important question of clinical medicine. His achievements, however, were most noted as to the diagnostics of heart-diseases, the displacement of the spleen, the relative insufficiency of the heart valves and the relation of typhoid to malaria. His clinic was built in 1878, and it created quite new medical conditions in Hungary. The yearly turnover in this hospital amounted in the first years to eight or ten thousand. In order to promote the better education of the medical students he organized the "clinical clerk" system, which consisted in employing twelve students alternately for two months in the clinic. As the clinic has from ten to fifteen assistants too, the clerks had ample opportunity to learn from expert clinicians. Korányi will never be forgotten for his work in postgraduate medical education. His greatest achievement, however, was his work against the spread of tuberculosis. He started a movement about twenty-five years ago which has grown to be such an organization that foreign doctors are coming to study our system (sanatoriums, dispensaries and convalescent homes for lung patients). The latest result of his incessant activity toward the check of tuberculosis was the notification six weeks ago by the minister of public hygiene of every doctor in the country, of the coming in force of the new law, according to which every case of advanced tuberculosis is to be reported to the hygienic authorities of the towns, villages or parishes, in order that isolation may be provided and the homes disinfected after the eventual death of tuberculosis patients. I do not exaggerate by saying that in the last twenty-five years the mortality from tuberculosis in Hungary decreased on an average from 22,000 to 25,000 deaths. This is mainly attributable to Korányi's praiseworthy energy.

The Curability of Cancer

The Hungarian medical journals are extensively criticizing the new treatment of cancer, which was too optimistically dealt with at the gynecologic congress in Halle. Although the new treatment was recommended by such prominent professors as Krönig of Freiburg and Döderlein and Bumm of Berlin, still we must be skeptical, our papers say, in accepting such rumors with full faith. In the last decade almost every year has brought a crop of new and "certain" treatments for cancer, but all failed. It is desirable that this new treatment shall be permanent and reliable, capable of ending the sufferings of many a thousand men and women—not to say children, although we have seen cases of cancer in subjects aged 17 and 18. The new treatment combines mesothorium rays and Roentgen rays. The latter are successfully employed through aluminum filters, without doing any damage even by long use; the mesothorium rays are employed in special apparatus. Mesotherium is scarce, the whole production being taken up already. One application lasts twelve hours, and thus with one tube only one patient can be treated. The professors exhibited patients who were entirely cured, one for five years, two for three years and sixteen for one year, without trace of recurrence. In all, one hundred cases have been treated. I saw the patients exhibited; they were beyond all doubt cured, and the absence of any cancerous growths or remainders was striking.

VIENNA LETTER

(From Our Regular Correspondent)

VIENNA, May 26, 1913.

Discussion on Medical School Inspection

The problem of medical inspectors of schools has attained marked prominence in our country lately. The Vienna Medical Council has organized a special investigation of this question by various officials and medical men. The first question was: Shall the appointment of medical school inspectors be a whole-time appointment, or shall it be an "accessory" appointment leaving the doctor free time for other remunerative work? The majority of the answers favored the "accessory" appointment, as only very few medical school officers, perhaps only the superintendent of the medical school inspectors, could at present expect to be paid on a scale sufficient to compensate for the income from a private practice.

The second question was: Shall the medical school inspector be a subordinate of the municipal or political board of health, or should he possess a consultative or decisive vote in all matters pertaining to school hygiene? Nearly without exception, this was answered in favor of the first alternative.

The third question was: Which schools should be under medical inspection, and which schools could do without it? The answer was that all schools, beginning with the kindergarten, up to the high schools and universities, including the apprentices' schools, should be under medical supervision. Special care should be given to the private schools and the boarding-schools. A number of questions dealt with the duties of the school doctor, and his rights. The hygiene of the schoolrooms, ventilation, light, cleanliness, water-closets and the hours of work should be controlled by him. But the main point of the doctor's work should consist in the hygienic control of the pupils: exact examination of the "school recruits," search for any defects, examination of pupils every few months, exclusion of children with contagious or infectious diseases, and the instruction of parents in regard to the advisability or necessity of treatment of existing defects or diseases. The majority of the experts were opposed to all treatment by the medical school inspector. His task should be purely a prophylactic one. Therefore special attention should be paid to the eyes, ears and teeth and to diseases of the organs of locomotion, of circulation and respiration. Furthermore, the school doctor should endeavor to prevent such defects as are often the result of the school: nervous overstrain, defects of an orthopedic or static nature, school anemia and school-propagated infections. The oversight of athletics, of games and of open-air classes would also belong to his duties. A diversity of opinion prevailed in regard to sexual instruction, which of course should not take place in the lower grades. Some experts thought that this problem did not belong to the doctor's domain, while others insisted that the school should not tackle this problem at all. A valuable suggestion was offered that pupils leaving the school should be examined and advised as to the choice of an occupation from the point of view of physical fitness. The medical school inspector should also observe the hygienic conditions of the teachers and the people living in the schools.

All experts advised against treatment by the school doctor; some wanted to send the poor children to the public clinics or outpatient departments of the hospitals; some demanded special school clinics and an increase of the numbers of appointed specialists under the poor-law. Only a few thought that an examination by the house physician of the family should make the pupil exempt from the examination by the school doctor. In any case, the school doctor should never restrict the field of the private doctor or the family physician. The office of school doctor should be open to all professional men, but they should absolutely abstain from treatment in this official position. A maximum limit of 12,000 pupils, if the doctor is appointed for the whole time, of 3,000 if the appointment is only part-time was favored. The fee should be about 2 kronen (40 cents) per head per year. An animated discussion took place about the question, What kind of postgraduate work is required for a school doctor? The majority were of the opinion that the general practitioner was not able to decide alone in many cases of otologic, ophthalmologic and odontologic diseases, although by attending special classes in these branches of medicine, he might be able to do valuable work in examinations in special branches. Therefore the appointment of specialists (for eye, ear, nose, throat, for speech defects, for teeth) was imperative. The Board of Education will undoubtedly use the investigation in framing new rules pertaining to the service of medical school inspection in Austria.

Marriages

WALTER DENNIS KENDIG, M.D., Kenbridge, Va., to Miss Helen Murray Yates, in Lunenburg County, Va., June 5.

FREDERICK DE SALES CHAPPELEAR, M.D., Hughesville, Md., to Miss Katherine P. Hughes, at Baltimore, June 3.

GEORGE ROE LOCKWOOD, JR., M.D., New York City, to Miss Louise Anne Dobel of Montreal, June 5.

CHARLES ALFRED WEST, M.D., Cleburne, Kan., to Miss Rosa Lee Bryan of Kansas City, Mo., June 4.

SYDNEY M. MACLEAN, M.D., Tacoma, Wash., to Miss Rosebud Featherling of Seattle, Wash., June 7.

GEORGE ALBERT MAY, M.D., Audubon, Iowa, to Miss Beulah Hayden of Wall Lake, Iowa, June 4.

WALTER F. SCOTT, M.D., Birmingham, Ala., to Miss Sally van Zile in New York City, June 3.

EARL ERRET BABCOCK, M.D., to Miss Lena Belle Losee, both of Adams Center, N. Y., June 4.

GEORGE S. EVERHART, M.D., Hagerstown, Md., to Miss Edith Phrcaner, at Baltimore, June 6.

Deaths

Harman George Howe, M.D. University of Vermont, Burlington, 1873; New York University, New York City, 1875; a member of the American Medical Association; president of the Hartford Hospital for many years; at one time president of the Hartford City Medical Society; visiting physician to the Retreat for the Insane, Hartford, and surgeon to the Hartford Hospital; died in Stamford Hospital, June 12, from fracture of the skull, received in a rear-end collision between trains at Stamford, aged 63.

Hugh Baker, M.D. University of Pennsylvania, Philadelphia, 1901; a member of the American Medical Association; local surgeon for the Baltimore and Ohio System; a member of the staff of the Cottage State Hospital and one of the founders of the Yough Medico-Social Club; a leading practitioner of Connellsville, Pa.; died in Mercy Hospital, Pittsburgh, May 28, from septicemia, due to an operation wound, aged 45.

Walter C. Gilday, M.D. Albany (N. Y.) Medical College, 1894; a member of the American Medical Association and New York Academy of Medicine; lecturer on surgery in the New York Polyclinic Medical School; attending surgeon to St. Elizabeth's, French and Polyclinic hospitals; died at his home in New York City, May 31, from acute gastritis, following ptomain poisoning, aged 42.

Gustavus Philemon Head, M.D. Rush Medical College, 1884; a member of the American Medical Association; professor of otology, laryngology and rhinology in the Chicago Post-Graduate Medical School; well known as a specialist and publisher, for several years, of the "Practical Medicine Series of Year Books"; died at his home in Austin, Chicago, June 11, from pneumonia, aged 51.

William Rush Patton, M.D. Rush Medical College, 1862; commissioned surgeon of volunteers during the Civil War but relieved from active field service by the War Department on account of a family left dependent on him by the death of his father and brother; for seven terms mayor of Charleston, Ill.; died at his home, May 12, from cardiac embolism, aged 76.

Robert Lauder, M.D. Yale University, New Haven Conn., 1871; a member of the Connecticut State Medical Society; a veteran of the Civil War; for forty years a practitioner of Bridgeport, Conn.; surgeon in charge of Fitch's Home for Soldiers, Noroton, Conn.; died suddenly in that institution, May 31, from disease of the kidneys, aged 72.

William Joseph Wickman, M.D. University of California, San Francisco, 1883; a member of the American Medical Association; president of the San Rafael (Cal.) Board of Education for seventeen years and president of the San Rafael Club for fifteen years; died at his home, May 29, from cerebral hemorrhage, aged 58.

Ernest M. Ellaby, M.D. Hospital College of Medicine, Louisville, Ky., 1904; a member of the Kentucky State Medical Society; formerly a member of the American Medical Association; died at his home in South Park, June 3, from disease of the stomach, aged 37.

John Neff, M.D. New York University, New York City, 1858; a member of the American Medical Association; acting assistant surgeon, U. S. Army, from 1861-65; vaccine physician of Baltimore from 1863-67 and president of the Baltimore Medical Association in 1878; for more than twenty years chief surgeon of the Baltimore and Ohio Railroad and for more than fifty years a resident of Baltimore; died at his home, June 5, from the effects of periostitis of the inferior maxilla, aged 81.

Austin Taylor Fink, M.D. New York University, New York City, 1869; a member of the Medical Society of the State of New York and a veteran of the Civil War; first health officer of the town of La Grange, postmaster and justice of the peace; died at his home in Freedom Plains, May 30, aged 69.

Allen Mott Ring, M.D. New York University, New York City, 1867; a member of the American Medical Association and for more than twenty-five years proprietor and superintendent of a sanatorium at Arlington Heights, Mass.; died at his home in Arlington Heights, June 3, aged 68.

Jonas J. Good, M.D. Northwestern University Medical School, Chicago, 1868; for many years a member of the Indiana State Medical Association; and for sixty-three years a resident of Huntington County; died at his home in Warren, June 9, from paralysis, aged 81.

Louisa Van Vleet Spicer Wright, M.D. University of Michigan, Ann Arbor, 1885; a member of the American Medical Association; of Camas, Wash.; aged 50; while harnessing a horse, May 31, was kicked by the animal and died from her injuries a short time afterward.

Frederick T. D. Cherry, M.D. University of Nashville, Tenn., 1868; a member of the Oklahoma State Medical Association; health officer of Sequoyah County, Okla., since statehood; died at his home in Sallisaw, May 26, from aneurysm of the thoracic aorta, aged 72.

Jens Ohnstad, M.D. Minneapolis College of Physicians and Surgeons, 1903; a member of the American Medical Association; died at his home in McIntosh, Minn., May 25, from injuries received in the overturning of an automobile a few hours before, aged 44.

Luther M. Davis, M.D. Physio-Medical College of Indiana, Indianapolis, 1900; a member of the Indiana State Medical Association; for five years township trustee; died at his home in Hayden, March 20, from the effects of an overdose of morphin, aged 39.

Frederick Asa Crane, M.D. Bellevue Hospital Medical College, 1866; a member of the Medical Society of the State of New York; physician to the Lewis County Home; for two years president of the village of Lowville; died at his home, June 2, aged 72.

Augustus S. Smith, M.D. Pennsylvania Medical College, Gettysburg, 1859; a veteran of the Civil War; for one term prothonotary of Lebanon County, Pa., and for more than fifty years a practitioner of Lebanon; died at his home, June 4, aged 73.

Charles H. Holt, M.D. University of Pennsylvania, Philadelphia, 1882; a member of the Michigan State Medical Society and Grand Rapids Academy of Medicine; died at his home in Grand Rapids, June 2, from cerebral hemorrhage, aged 58.

Lyell Reppert, M.D. State University of Iowa, Iowa City, 1902; a member of the American Medical Association; of Muscatine, Iowa; died suddenly at the Broughton Sanitarium, Rockford, Ill., May 29, from heart disease, aged 34.

Silas Addison Wessels, M.D. University of Michigan, Ann Arbor, 1878; a member of the Medical Society of the State of New York; died at his home in Canajoharie, N. Y., March 20, aged 61.

John R. Tilbrook, M.D. Western Pennsylvania Medical College, Pittsburgh, 1901; a member of the Medical Society of the State of Pennsylvania; died at his home in Pitcairn, June 3, aged 40.

Archibald Borden Sellards, M.D. Miami Medical College, Cincinnati, 1875; a veteran of the Civil War; died at his home in Lawrence, Kan., April 20, from cerebral hemorrhage, aged 68.

Roland Cramer, M.D. Drake University, Des Moines, Iowa, 1895; University of Pennsylvania, Philadelphia, 1896; died at his home in Des Moines, June 3, from heart disease, aged 41.

Margaret Violet Covey Doane Kimball, M.D. University of Michigan, Ann Arbor, 1880; died at her home in Healdsburg, Cal., April 17, aged 60.

The Propaganda for Reform

IN THIS DEPARTMENT APPEAR REPORTS OF THE COUNCIL ON PHARMACY AND CHEMISTRY AND OF THE ASSOCIATION LABORATORY, TOGETHER WITH OTHER MATTER TENDING TO AID INTELLIGENT PRESCRIBING AND TO OPPOSE MEDICAL FRAUD ON THE PUBLIC AND ON THE PROFESSION

THIOCOL AND SYRUP THIOCOL, ROCHE

Reconsideration of Acceptance and Deletion from New and Nonofficial Remedies—A Report of the Council on Pharmacy and Chemistry

Seven years ago the Council accepted Thiocol for inclusion with New and Nonofficial Remedies and more recently also a preparation of it, Syrup Thiocol, Roche. Recently the Council was advised that the product was being advertised to the public, both in this country and abroad, under grossly exaggerated claims. It, therefore, directed that the matter be brought to the attention of the American agent for Thiocol. This was done. The Council, having considered the agent's reply, voted that Thiocol and Syrup Thiocol, Roche, be omitted from New and Nonofficial Remedies; it further authorized publication of the following report, which has been submitted both to the American agents and to F. Hoffmann-LaRoche & Co., Basel, Switzerland.

W. A. PUCKNER, Secretary.

Syrup Thiocol, Roche (New and Nonofficial Remedies, 1913, p. 124), is a syrup containing Thiocol as its effective component. It has come to the knowledge of the Council on Pharmacy and Chemistry that a similar preparation, namely, a syrup containing Thiocol as its effective component, is advertised to the public abroad under the name "Sirolin," by the manufacturers of Thiocol, F. Hoffmann-LaRoche and Co., Basel, as a cure for consumption ("Lungencatarrh"), asthma and whooping-cough (*Fliegende Blätter*, March 1, 1912).

The same firm through the American house, the Hoffmann-LaRoche Chemical Works, New York, registered the name "Sirolin" for this preparation as a trade-mark in this country and shortly thereafter sold and assigned to the Sirolin Company, a newly organized New York corporation, the Sirolin trade-mark and everything that went with it. This company has advertised the product to the American public as rendering people "*immune* against the most common, troublesome and dangerous of ailments—the host of diseases that affect the throat and lungs" and has recommended its "remedial virtues" "in incipient Consumption, in deep-seated Coughs and Colds, La Grippe, Bronchitis and Whooping-Cough" and "effects" are said to be "quick and permanent." (Worcester *Telegram*, March 25, 1911).

The rules governing the acceptance of proprietary articles for N. N. R. prohibit the direct advertising to the public, in this and in foreign countries, of articles other than disinfectants and foods. In explanation of this prohibition the Council says:

"The impossibility of controlling irresponsible claims which are usually made in advertisements to the public, the well-known dangers of suggesting by description of symptoms to the minds of people that they are suffering from the many diseases described, the dangers of an unconscious and innocent formation of a drug habit, and the evils of harmful self-medication, including the dangers of the spread of many infectious and contagious diseases when hidden from the physician, and similar well-known considerations, are the reasons for discouraging, in the interest and for the safety of the public, this reprehensible form of exploitation."

In view of the well-established fact that the most important of all factors in the cure of consumption consists in an early and accurate diagnosis, followed by general treatment, the Council considers that the advertising of a syrup of Thiocol, under the name "Sirolin," by the manufacturers of Thiocol, F. Hoffmann-LaRoche and Co., and by a company, the Sirolin Company to which the manufacturers sold the trade-mark and other rights for this preparation, involves not merely a serious infringement of its rules, but a menace to the public. The Council has, therefore, voted to delete Thiocol and Syrup Thiocol, Roche, from the list of New and Nonofficial Remedies.

WHAT PHARMACISTS THINK OF THE SARSAPARILLA FETISH

For pharmacy at its best we turn to the *Druggists Circular*. The following, from the May, 1913, issue, is one of the reasons we do so:

"*Compound Extract of Sarsaparilla.*—F. P. V., New Jersey, writes: 'Can you suggest a formula for a compound extract of sarsaparilla that could be retailed for about 50 cents a pint?'

"We can, but know of no reason why we should, and do not believe that we shall. We think pharmacists should practice pharmacy, and if they do not find this sufficiently remunerative and so decide to go into the handling of merchandise, they should select lines that will not bring discredit on their vocation. There are already too many fake cure-alls on the market. It would be better for pharmacy as a profession and for the drug business as a mercantile pursuit if the whole nostrum outfit were relegated to what someone has spoken of as the 'category of unindexed oblivion.' Fakers *will* fake; they don't seem to care; but druggists, as followers of an honorable calling, cannot afford to play grim jokes on trustful seekers after health."

Correspondence

Sanitary Flood Survey

To the Editor:—The first sanitary flood survey of the Ohio and Wabash rivers was made during the week of April 7, 1913, and is a good example of emergency sanitation. The United States government is better fitted than any of the states to initiate emergency sanitation, and on this account on April 7 the Indiana State Health Commissioner, Dr. Hurty, was notified that a boat survey expedition would start from Louisville, Ky., April 8, and that the government wished representatives of the states of Indiana, Kentucky and Illinois to accompany this expedition.

Major James A. Logan, Jr., of the Quartermaster's Department of the U. S. Army chartered a steam packet, the *Ed Myer*, on which were placed several car-loads of lime in 40-pound sacks, this size being the easiest handled, a large quantity of potassium permanganate in 1-pound cans, several thousand units of typhoid vaccine, several thousand small-pox vaccine points and several thousand units of diphtheritic antitoxin. For emergency work a ration consisting of salt pork, flour, coffee, sugar and condensed milk was added.

Major P. C. Hutton, surgeon, U. S. Army, was put in command of the expedition. Dr. W. L. Heiser of Bowling Green, Ky., represented the State Board of Health of Kentucky and Mr. R. W. Douglas of the Indianapolis *News* and I represented Indiana.

The first problem in sanitation was our boat, the condition of the bed-clothing and the food. The latter was served by a cook who, together with his wife and son, was undoubtedly a victim of the hookworm. The water to drink was the filthy Ohio. This water I found was used by the crews of the river boats and many inhabitants along the river without any boiling whatever.

The scheme for this emergency survey was as follows: By telegram or telephone, the health officer or some prominent citizen at each point was notified of the probable hour of the boat's arrival and requested that as many of the leading citizens as possible be asked to meet the boat. The people were notified of the arrival of the boat by the United States lighthouse tender's signal, and Major Hutton would give a short talk on preventive work, instructing the people to cleanse their houses by scraping the mud off the floor and then scrubbing the floors with a solution of potassium permanganate, sprinkling lime in the cellars and outhouses and wherever there was decomposing material. In some places in which the mud and filth were great in the streets, it was shown that these should be scraped or washed by the fire department and the liquid mud and dèbris carted away to be used as fertilizer. Its richness in fertilizing material was easily shown to those with normal olfactory nerves. After Major Hutton's talk, Dr. Heiser spoke in Kentucky towns and I in Indiana towns, showing the necessity and the use of the typhoid vaccine and exhibiting ourselves as having passed through the ordeal without any bad effects. I am sorry to say that quite often it was necessary to instruct the health officers and some of the physicians present as to the method of using the vaccine. Our endeavor was to leave enough disinfectants and vaccine to supply the emergencies, later doses to be forwarded from the State Board of Health.

As a concrete instance of efficiency and inefficiency in sanitary work, I would mention Cannelton and Tell City, Ind. At Cannelton the mayor and the Citizens' Relief Committee were supplied with rations from the government and no man was given food until he had assisted in cleaning the streets, a portion of each day being devoted to cleaning the town. At Tell City the mayor distributed rations himself to whomever he pleased and did nothing to clean the town. Emergency work of this character must be done at the start by the local authorities. The streets of Tell City had been untouched for four days at the time of our arrival. As another example of efficiency, I wish to mention that at New Harmony, Ind., the city health officer had printed sanitary regulations and in a boat paddled around the streets pasting them in places long before the flood receded.

To make work of this character effective, it is necessary first to have strong and substantial backing, financially and otherwise, the moral support of the authorities, efficiency and courage in health officers and, most of all, "hustle" in the man who is doing the work. A day's loss in time of start may result in hundreds of cases of typhoid fever and thousands of dollars of damage.

After the first survey is made, this should be followed up in a week or ten days by a second to see whether or not the recommendations of the first have been carried out and the proper amount of typhoid vaccine given. At the end of another week a third survey can be accomplished by mail from the reports from the health officers at each place.

In towns in which there were inefficient health officers or incompetent mayors, I recommended to the governor and also to Dr. J. N. Hurty that a National Guard medical officer with a sufficient number of hospital corps be stationed to supervise the sanitary measures instituted. The National Guard knows no politics in distributing relief and the uniform impels respect and obedience; great good is thereby accomplished.

At the time of writing this article, Gen. Charles A. Garrard, Quartermaster-General of the Indiana National Guard, has by order of the governor been sent to the towns along the Ohio and Wabash rivers needing assistance. I believe that by so using a National Guard officer a uniformity in relief and sanitary measures can be accomplished which will be followed by better results than if left to local authorities. Although at some places such as Evansville, Cannelton, New Harmony and Leavenworth the health officers and authorities were working well together for the public's good, at other places friction had developed, allegations of a political nature had been made and inefficiency was present.

The excellent work done by the National Guard during the flood emergencies in Indianapolis, Peru and other places is well known. With medical supplies and equipment ready and men trained in this special kind of work they were ready to go at a moment's notice, and I am more than ever convinced that flood emergencies should be handled by the medical officers of the regular Army and the National Guard.

FRANK W. FOXWORTHY, M.D., Indianapolis.
Captain, Medical Corps, Indiana National Guard; First Lieutenant, Medical Reserve Corps, U. S. A.

Medical America Seen with Foreign Eyes

To the Editor:—Under this title an editorial was published in THE JOURNAL, Jan. 25, 1913, p. 286, in answer to my article in the *Münchener medizinische Wochenschrift*, Nov. 5, 1912, p. 2463.

You evidently feel hurt in your quality of American by several of my critical remarks about some American organizations, and pour the vials of your wrath on the stranger, whose article is not supposed to have its origin from a "prominent German physician," but a "Cook's tourist."

I frankly admit that from a three weeks' trip through the centers of the United States nobody can give an exhaustive description of the medical conditions of the country. I therefore gave my article the title of "Traveling Impressions" and expressly declared that I did not want to give a detailed report, but only momentary sketches. Besides, I openly acknowledged that the Americans surpass us in some instances also in medical matters, particularly in the grandeur of hygienic installations and scientific institutes, and even in the editorial it is admitted that my censure about the congress organization in Washington was "entirely deserved." This does not prevent you, however, from attacking me because I did not say about the Rockefeller Institute more than that it has been built at immense expense by a rich man. If you had read my article with more attention, you would have found the acknowledgment in the following sentence, in which I observed that it served scientific studies and contained departments for experimental pathology, physiologic chemistry, bacteriology and comparative anatomy.

You call childlike my admiration of the numerous opportunities for bathing in American hotels. Against this I must protest. I indeed find this arrangement exceedingly hygienic, and can only express my pleasure about the European hotels, which are going ahead in the same way. Imitation is the sincerest flattery. I advise my American medical colleagues to use their influence that this custom may extend in their own country more and more.

Most of all, however, you are indignant at my recommendation of the American remedy against seasickness. You declare it to be impossible that an American doctor, especially a prominent one, would praise such a "humbug" in a scientific publication. I certainly do not understand your sensitiveness on this point. There does really not exist another country in the world which brings out so many "patent medicines" as America. You need only read the numerous advertisements of an American medical journal and you will find quite a number of such medicines. The one I recommended, because I tried it myself, is a "patent medicine" only in its quantitative composition. As already said in my article, it contains potassium bromid, camphor and caffein. On a longer sea-journey seasickness does not play an inconsiderable rôle, as anybody who has had to suffer from it will agree, and I maintain that one has to be grateful for every remedy which delivers one from this unpleasant complication. It having become evident that remedies like validol, veronal, etc., are of no use, we were glad to have found at last a remedy which, though not always, proved efficient in most cases. My own experience thoroughly confirms that of Professor Fuchs of Vienna, who mentioned it first in the *Neue freie Presse*. Our chemists may perhaps succeed in discovering the quantitative composition of this remedy, and we could then give it to our patients in form of a recipe.

It seems to be impossible for the practical American to understand that a German doctor recommends a "patent medicine" only because he had good experiences with it and wants to help all those who have to suffer. I wish that you might recognize that your criticism, as you say yourself, was "hypercritical" and went beyond its limits.

K. JAFFÉ, M.D., Hamburg, Germany.

[COMMENT.—Our correspondent is mistaken in attributing injured feelings to us; we realize that there is no occasion for such feelings. Any one must be implacable indeed who could not forgive a three weeks' tourist his natural misapprehensions with regard to entirely new and unfamiliar phenomena and institutions. If our correspondent will pardon us our perhaps equally natural amusement that he and the *Münchener medizinische Wochenschrift* should have chosen to publish to the world such impressions, we will take the responsibility of absolving him, in our "quality of American," from all blame for injured feelings on this side of the Atlantic. Meanwhile, those who wish to read impressions of America of another character may turn to those of Strauss of Berlin (Reiseeindrücke aus amerikanischen Krankenhäusern, *Deutsch. med. Wchnschr.*, Feb. 13, 1913, p. 323), and von Noorden of Vienna (Amerikanische Reiseeindrücke, *Neue freie Presse*, Vienna, December 6, 7, 1912).

It would take too much space to make clear to our correspondent the difference between our point of view and his. We will try, however, to explain one point which he frankly declares he does not understand, namely, our comment on his recommendation of the nostrum for seasickness in question—the composition of which, by the way, he gives incorrectly—it does not contain bromids. "It seems to be impossible," complains our correspondent, "for the practical American to understand that a German doctor recommends a 'patent medicine' only because he had good experiences with it and wants to help all those who have to suffer." Not at all; we understand Dr. Jaffé's good intentions perfectly. What we do find somewhat strange is the fact that a physician, presumably trained to think cogently with regard to the therapeutic action of drugs, should reason as naïvely as any of the multitude of dupes who give their testimonials for Pain-Killer or Magic Elixir. "I took this wonderful remedy; I ceased to have pain. This proves that it cured me and also that it will cure any one else who will take it." Americans are familiar with such testimonials, but they are not accustomed to seeing the signatures of physicians of standing appended to them.—ED.]

Queries and Minor Notes

ANONYMOUS COMMUNICATIONS will not be noticed. Every letter must contain the writer's name and address, but these will be omitted, on request.

ARTICLES ON MEDICAL ETHICS

To the Editor:—During the summer I propose to make a study of medical ethics. It would be a great courtesy if you would publish a list of books or articles which would be of help.

P. W. L.

ANSWER.—Following is a list of references on the subject which should prove of service. The list comprises articles or abstracts appearing in THE JOURNAL, and articles appearing in other publications and books.

Division of Fees, Queries and Minor Notes, THE JOURNAL, Dec. 18, 1909, p. 2117.

Lord, J. P.: The Secret Commission Evil, THE JOURNAL, March 11, 1911, p. 725.

The Secret Commission Evil, editorial, THE JOURNAL, March 11, 1911, p. 748.

The Secret Commission Evil, editorial, *Colorado Med.*, February, 1911; reproduced in THE JOURNAL, March 11, 1911, p. 770.

The Secret Commission Evil, Correspondence, THE JOURNAL, March 25, 1911, p. 916; April 1, 1911, p. 987.

The Evils of the Contract System: Report of the Committee Appointed by the Erie County Medical Society to Investigate Unethical Contract Practice, Medical Economics Department, THE JOURNAL, Aug. 19, 1911, p. 674.

Nutt, G. D.: Medical Profession To-Day and Business End of It, *Pennsylvania Med. Jour.*, August, 1911; abstr., THE JOURNAL, Sept. 16, 1911, p. 1009.

Perkins, I. B.: Plan for Uniting Medical Profession in Effort to Maintain Highest Possible Standard of Ethics, *Denver Med. Times*, November, 1911, abstr., THE JOURNAL, Dec. 2, 1911, p. 1868.

Skeel, R. E.: Ethics of Contract Medical Practice and Its Economic Advantage to the Community, *Cleveland Med. Jour.*, November, 1911; abstr., THE JOURNAL, Jan. 6, 1912, p. 65.

Tuckerman, J. E.: Economic Effect of Contract Medical Practice on Medical Profession, *Cleveland Med. Jour.*, November, 1911; abstr., THE JOURNAL, Jan. 6, 1912, p. 65.

Hamann, C. A.: Condition and Control of Contract Medical Practice in Other Cities of the Country, *Cleveland Med. Jour.*, November, 1911; abstr., THE JOURNAL, Jan. 6, 1912, p. 66.

Method of Procedure when Supplanted by Consultant, Queries and Minor Notes, THE JOURNAL, Feb. 3, 1912, p. 364.

Ethics of Accepting a Position on a Church Dispensary, Queries and Minor Notes, THE JOURNAL, March 16, 1912, p. 804.

Relation of Consultant to Patient and Attending Physician, Queries and Minor Notes, THE JOURNAL, April 13, 1912, p. 1136.

Principles of Medical Ethics, a Proposed Revision, THE JOURNAL, June 8, 1912, p. 1790. Adopted by the House of Delegates June 4, 1912, with slight modifications noted in THE JOURNAL, June 15, 1912, p. 1906.

Instruction in Medical Ethics, Paris Letter, THE JOURNAL, June 22, 1912, p. 1957.

Charging a Brother Practitioner for Services, Queries and Minor Notes, THE JOURNAL, Aug. 10, 1912, p. 465.
Questions of Usage and Medical Ethics, Queries and Minor Notes, THE JOURNAL, Oct. 26, 1912, p. 1560.
Discreditable Remuneration in Contract Practice, Berlin Letter, THE JOURNAL, Dec. 14, 1912, p. 2169.
Conference on Contract Practice, Berlin Letter, THE JOURNAL, Dec. 28, 1912, p. 2324.
Instruction in Medical Ethics and Economics, Vienna Letter, THE JOURNAL, April 12, 1913, p. 1168.
Medical Ethics, by a physician's wife, THE JOURNAL, April 26, 1913, p. 1290.
Report of the Judicial Council to the House of Delegates, 1913, treats the subjects of the secret division of fees and contract practice. It appears in the minutes of the House of Delegates on a later page of this issue or else June 28.
Boswell, J. H.: Ethics, *Jour. Kansas Med. Soc.*, May, 1907.
Pinard, A.: Medical Ethics, *Presse méd.*, 1907, xv, No. 7.
Castleman, H. L.: Medical Ethics, *West Virginia Med. Jour.*, October, 1907.
Baum, W. L.: The Medical Profession and the Public, *Illinois Med. Jour.*, July, 1908.
Shattuck, F. C.: Medical Ethics, *Cleveland Med. Jour.*, August, 1908.
Hall, O. B.: Medical Ethics, *Jour. Missouri State Med. Assn.*, November, 1908.
Frost, C. E.: Professional Ethics, *Jour. Oklahoma State Med. Assn.*, February, 1909.
Renaker, J. G.: Medical Ethics, *Kentucky Med. Jour.*, February, 1909.
Potts, F. L.: Medical Ethics, *Jour. South Carolina Med. Assn.*, April, 1909.
Vander Veer, A.: The Ethics of Our Profession, *New York Med. Jour.*, Jan. 30, 1909.
Martin, E. D.: The Doctors and Their Ethics, *New Orleans Med. and Surg. Jour.*, June, 1909.
London, W.: Medical Ethics, *Kentucky Med. Jour.*, July, 1909.
Lawbaugh: The Physician, His Duties and Relation to the Profession, *Jour. Michigan State Med. Soc.*, Detroit, October, 1909.
Willour, L. S.: Medical Ethics, *Jour. Oklahoma State Med. Assn.*, November, 1910.
Hiltner, W. G.: Timely Ethical Problems, *Western Med. Rev.*, February, 1911.
Elder, A. V.: Medical Ethics, *Med. Press and Circular*, Oct. 4, 1911.
Achard, H. J.: The Farce of Medical Ethics, *Chicago Med. Recorder*, Dec. 15, 1911.
Wood, P. R.: Disloyalty to Medical Ethics Responsible for Small Societies, *Jour. Iowa State Med. Soc.*, January, 1912.
Emerson, L.: Ethical Problems Confronting Eye, Ear, Nose and Throat Specialist, *New Jersey Med. Soc. Jour.*, March, 1913.
Apen, M.: Subversion of Medical Ethics, *Denver Med. Times and Utah Med. Jour.*, April, 1912.
Hooker, R. T.: How Do We and How Should We Treat a Brother Physician? *Kentucky Med. Jour.*, May, 1912.
Furman, D.: Medical Ethics, *Jour. South Carolina Med. Assn.*, July, 1912.
Caraway, M.: Medical Ethics, *Mississippi Med. Month.*, August, 1912.
Kern, R.: The Basic Principles of Ethics, *Deutsch. med. Wchnschr.*, Sept. 5 and 12, 1912.
Surratt, I. W.: Medical Ethics, *Old Dominion Jour. Med. and Surg.*, October, 1912.
Anthony, F. R.: Medical Ethics, *Jour. Missouri State Med. Assn.*, November, 1912.
Dubois, P.: Ethics of Psychology, *Cor.-Bl. f. schweiz. Aerzte*, Dec. 10, 1912.
Roberts, John B.: The Doctor's Duty to the State: Essays on the Public Relations of Physicians, *New York Med. Jour.*, 1904, lxxx.
Saundby: Medical Ethics, Lippincott, price $2.50.
Cathell: The Physician Himself, F. A. Davis Co., 1914 Cherry Street, Philadelphia, price $2.50.

THE SPELLING OF "ANESTHESIA"

To the Editor:—I wish to call your attention to an error in spelling which occurs in the symposium on anesthesia. The word "anaesthesia" is spelled "anesthesia" which means "without garment." To those who understand Greek the error is quite amusing.

ISABELLA C. HERB, M.D., Chicago.

ANSWER.—The spelling to which attention is called is not an error. Our correspondent would be quite right if "anesthesia" were a Greek word, but it is as much English as "anesthésie" is French and "anestesia" Italian; and it surely will not be maintained that either of the latter words is misspelled, or that the meaning of either is aught but "without sensation."

In the English language "hwaenne" has become simplified to "when" and "wasshe" to "wash." Why should an adopted word claim an immutable sanctity superior to that accorded to words native to the language? Even those who, like our correspondent, are familiar with the original sources of words, will scarcely, we imagine, insist that "equity" should be spelled "aequity" lest some one should fancy it derived from "equus" instead of "aequus," or that "question" should be spelled "quaestion" lest some careless student should believe it derived from "questio," a complaint, instead of "quaestio," an inquiry. The amusing phase of this spelling controversy—if our correspondent will pardon us for saying so—is, to our mind, the plea that the classical origin of certain English words makes of them a privileged class, exempt from the laws to which more plebeian words must submit—and this although the French, Italian and Spanish cousins of these very linguistic aristocrats submit meekly enough to the laws of the respective languages in which they are naturalized.

PREVENTION OF THE DISSEMINATION OF MEASLES

To the Editor:—Please give the present-day opinions on the following points in regard to measles:

1. Is the disease frequently disseminated by third persons, as doctors, fomites, etc.?
2. How soon after onset does a case of measles cease to be a danger to other children?
3. Should a discharging ear affect the length of the quarantine period?
4. At what period after onset would you recommend fumigation of the sick-room? Do you consider fumigating necessary, as a routine measure, three weeks after onset?

FREDERIC C. SHARPLESS, M.D., Rosemont, Pa.

ANSWER.—1. While possible, this is not a frequent means of dissemination.

2. The period of infectivity is uncertain, but recent experiments on the virus in animals seem to indicate that the infectivity is lost quite early. It is usually estimated that danger exists so long as there is a lesion, such as sore throat, discharging ear or desquamation. Probably this rule would extend quarantine beyond the absolutely necessary period. Three weeks is generally fixed as the limit of quarantine.

3. Yes.

4. Fumigation, if used at all, should not be attempted until the patient is ready for discharge from quarantine. Fumigation is desirable as a routine measure, but greater attention should be given to the condition of the patient as a transmitter of the disease.

ARTICLES ON SEWER-GAS AND ITS EFFECTS

To the Editor:—Please give names of some of the best books or papers on sewer-gas and its effects on the human being. E.V.N.

ANSWER.—This is a subject on which little seems to have been written of late, possibly because the trend of opinion now is that sewer-gas is less important than was formerly believed. Following are titles of some of the more accessible recent articles:

Winslow, C. E. A.: Conveyance of Bacteria by Sewer-Air, *Am. Jour. Pub. Hyg.*, 1909, xix, 640.
Mead, K. C.: Is Sewer-Gas Detrimental? *Yale Med. Jour.*, 1903, x, 91.
Jacobi, A.: The Production of Diseases by Sewer-Air, *New York Med. Jour.*, 1894, lx, 104, 135.
Fatal Sewer-Air Poisoning, *Lancet*, London, 1898, ii, 1722.
Edgeworth, F. H.: Some Diseases Occurring in Men Who Worked in a Sewer, *Bristol Med.-Chir. Jour.*, 1898, xvi, 33.

TREATMENT OF VICE PROBLEM ABROAD

To the Editor:—In some of my medical journals during the past year or so I saw a report on the manner in which various countries were dealing with the vice problem. I am anxious to find that report again, and cannot.

E. G. BRANDENBERGER, M.D., Evansville, Ind.

ANSWER.—Our correspondent may refer to one of the articles in the following list:

Bierhoff, F.: Sanitary Control of Prostitution in Some European Cities, *New York Med. Jour.*, Sept. 2 and 28, and Oct. 5, 1912.
Kelly, H. A.: Influence of Segregation on Prostitution and on the Public. Obtainable from Dr. R. W. Willson, 1708 Locust St., Philadelphia.
Forest de, H. P.: Police Methods of Dealing with Prostitution in Germany, *New York State Jour. Med.*, October, 1908.
Bierhoff, F.: Control of Prostitution and Venereal Diseases Abroad, *Am. Jour. Urol.*, July, 1911.

ARTICLES ON FETAL MEMBRANES FOR SKIN-GRAFTING—FORMULA OF CARREL'S SOLUTION

To the Editor:—1. Please refer me to what literature there is on the subject of fetal membranes for skin-grafting.
2. Also kindly give me the formula for Carrel's solution.

D. D. TURNACLIFF, M.D., St. Paul, Minn.

ANSWER.—1. The following articles may be referred to:

Sabella, N.: Use of Fetal Membranes in Skin-Grafting, *Med. Rec.*, New York, March 15, 1913; abstr., THE JOURNAL, March 29, 1913, p. 1029.
Stern, M.: The Grafting of Preserved Amniotic Membrane to Burned and Ulcerated Surfaces, Substituting Skin-Grafts, THE JOURNAL, March 29, 1913, p. 973.

2. A formula of Carrel's solution is given in an article by him in THE JOURNAL, Aug. 17, 1912, p. 523.

Medical Education and State Boards of Registration

COMING EXAMINATIONS

ALABAMA: Capitol, Montgomery, July 8. Sec., Dr. W. H. Sanders, Montgomery.

ARIZONA: Phoenix, July 1. Sec., Dr. John Wix Thomas, National Bank of Arizona Building.

COLORADO: Denver, July 1. Sec., Dr. David A. Strickler, 612 Empire Building.

CONNECTICUT: Regular, City Hall, New Haven, July 8-9. Sec., Dr. Charles A. Tuttle, 196 York Street; Homeopathic, Grace Hospital, New Haven, July 8. Sec., Dr. Edwin C. M. Hall, 82 Grand Avenue; Eclectic, New Haven, July 8. Sec., Dr. T. S. Hodge, 19 Main St., Torrington.

DISTRICT OF COLUMBIA: Washington, July 8. Sec., Dr. George C. Ober, 125 B St., S. E.

INDIANA: State House, Indianapolis, July 8-11. Sec., Dr. W. T. Gott, 120 State House.

MASSACHUSETTS: State House, Boston, July 8-10. Sec., Dr. Walter P. Bowers, Room 159, State House.

MONTANA: Senate Chamber, Capitol Bldg., Helena, July 8. (First special examination held aside from regular semi-annual examinations.) Sec., Dr. William C. Riddell, Helena.

NEW HAMPSHIRE: Concord, July 8-9. Regent, Mr. H. C. Morrison, State Library.

NEW MEXICO: Santa Fe, July 14. Sec., Dr. W. E. Kaser, East Las Vegas.

NEW YORK: June 24-27. Chief of the Examinations Division, Harlan H. Horner, Department of Education, Albany.

NORTH DAKOTA: Grand Forks, July 1. Sec., Dr. G. M. Williamson.

OKLAHOMA: Guthrie, July 8-10. Sec., Dr. John W. Duke, Guthrie.

OREGON: Portland, July 1. Sec., Dr. E. B. McDaniel, 704 Electric Building.

PENNSYLVANIA: Harrisburg, Philadelphia and Pittsburgh, June 23-25. Sec., Mr. Nathan C. Schaeffer, Department of Public Instruction, Harrisburg.

RHODE ISLAND: State House, Providence, July 10. Sec., Dr. Gardner T. Swarts, State House.

SOUTH DAKOTA: Capitol Bldg., Pierre, July 8. Sec., Dr. L. G. Hill, Watertown.

TEXAS: Capitol Bldg., Austin, June 24-26. Sec., Dr. W. L. Crosthwait, Suite 1110 Amicable Bldg., Waco.

UTAH: Salt Lake City, July 7-8. Sec., Dr. G. F. Harding, 310 Templeton Building.

VERMONT: Burlington, July 8-11. Sec., Dr. W. Scott Nay, Underhill.

VIRGINIA: Richmond, June 24-27. Sec., Dr. Herbert Old, Norfolk.

WASHINGTON: Stadium High School, July 1-6. Sec., Dr. F. P. Witter, Spokane.

WEST VIRGINIA: Charleston, July 14-16. Sec., Dr. H. A. Barbee, Point Pleasant.

WISCONSIN: Milwaukee, June 24-26. Sec., Dr. J. M. Beffel, 3200 Clybourn Street.

WYOMING: State House, Cheyenne, June 25-27. Sec., Dr. J. B. Tyrrell, Laramie.

Wisconsin January Report

Dr. John M. Beffel, secretary of the Wisconsin State Board of Medical Examiners, reports the written and practical examination held at Milwaukee, Jan. 14-16, 1913. The total number of subjects examined in was 20; total number of questions asked, 100; percentage required to pass, 75. The total number of candidates examined was 18, of whom 12 passed, including one osteopath, 2 failed, 3 were conditioned and 1 withdrew. Seventeen candidates were licensed through reciprocity. The following colleges were represented:

PASSED

College	Year Grad.	Per Cent.
College of Physicians and Surgeons, Chicago	(1911)	75
Rush Medical College	(1897)	78
Hahnemann Medical College and Hospital, Chicago, (1910) 75.	(1894)	75;
Bennett Medical College	(1912)	84
Creighton Medical College	(1912)	82
University of Pennsylvania	(1911)	91
Hahnemann Medical College of Philadelphia	(1912)	79
Marquette University, Medical Department, (1910) 75; 75, 75.	(1912)	

FAILED

Marquette University, Medical Department	(1912)	62, 69

CONDITIONED

Bennett Medical College, Chicago	(1911)	*75
Indiana University	(1910)	*75
Marquette University, Medical Department	(1912)	†75

*Conditioned in Physical Diagnosis.
†Conditioned in Pathology.

LICENSED THROUGH RECIPROCITY

College	Year Grad.	Reciprocity with
Rush Medical College	(1904) (1911)	Illinois
Northwestern University Medical School	(1910) (1911)	Illinois
Chicago Coll. of Medicine and Surgery,	(1909) (1911)	Illinois
Bennett Medical College	(1906)	Illinois
Hahnemann Medical College and Hospital, Chicago	(1906) (1910)	Illinois
University of Iowa, College of Medicine	(1888)	Iowa
University of Louisville	(1894)	Kentucky
University of Minnesota, School of Medicine	(1911)	Minnesota
Hamline University	(1904)	N. Dakota
Long Island College Hospital	(1899)	Nevada
Bellevue Hospital Medical College	(1882)	Minnesota
Western Reserve University	(1909)	Ohio
Meharry Medical College	(1912)	Tennessee

Book Notices

ELECTRICITY IN DISEASES OF THE EYE, EAR, NOSE AND THROAT. By W. Franklin Coleman, M.D., M.R.C.S., Professor of Ophthalmology in the Post-Graduate Medical School of Chicago. Cloth. Price, $5. Pp. 505 with 156 Illustrations. Lincoln, Ill.: The Courier-Herald Press, 1912.

Part I is devoted to the physics of electricity and electrotherapeutic apparatus. Part II treats of the therapeutic uses of electricity and the technic of its application, including phototherapy and the Roentgen rays. Part III covers the use of electricity in diseases of the eye and describes its application in practically every abnormal condition from blepharitis marginalis to atrophy of the optic nerve, including errors of refraction. The author does not claim to have personally seen benefit from electricity or "electric massage" in cases of error of refraction, but quotes from Dr. S. J. Harris of Boston some astounding statements. For example, in speaking of the effect of such treatment in hyperopia, he says: "Out of two hundred children ranging from 10 to 15 years, having a hypermetropia of .50 to 3.00 D., one hundred of them have been able to go without glasses, fifty of them needed only very weak glasses, and the other fifty required glasses less than half the strength of those they originally wore. In some cases the improvement is immediate, and in others it is not noticed until after the ten sittings. In 40 per cent. of the cases, ranging from 15 to 20 years, no glasses were needed; in 60 per cent., ranging in age from 20 to 50, I was able to reduce the error and prescribe weaker glasses than would have been required before the treatment." Such assertions should be fortified by the reports of cases in which most painstaking examinations have been made, under complete cycloplegia, both before and after treatment. Part IV is devoted to electricity in diseases of the ear, and the balance of the book to diseases of the throat and nose. No one who reads the book can doubt the author's sincerity or his enthusiasm, and he recounts many truly remarkable cures (?); but many of the cases cited are so incompletely reported that they are valueless as evidence. In some of the cases of common diseases of the eye reported as cured by electricity, the patients would ordinarily recover in the same or less time under the usual methods of treatment.

LANG'S GERMAN-ENGLISH DICTIONARY OF TERMS USED IN MEDICINE AND THE ALLIED SCIENCES. Second Edition, Edited and Revised by Milton K. Meyers, M.D., Neurologist to the Jewish Hospital Dispensary, Philadelphia. Cloth. Price, $5 net. Pp. 564. Philadelphia: P. Blakiston's Son & Co., 1913.

This dictionary is printed with large and convenient type and classification, but some of the definitions, although they convey the idea, have a distinctly foreign flavor which might sound odd if used in an English article. The additions noted in the new edition are free from this objection. The scientist will miss some words he hopes to find there; *Hirnblutleiter*, for instance, is not given although it occurs in a title in a current medical exchange; *Unterbinden* is defined as "to ligature." The term "lymph-node" does not seem to be used, *Drüsen* being translated "gland" throughout. A few typographic errors, such as "Towara" for "Tawara" are excusable, but the word *Soda* might have meen translated otherwise than by "soda" as the German term is applied to washing-soda while the English term is used often more indiscriminately. The dictionary also enriches the English language with the term "squeeze-preparation," which is the definition of *Klatschpräparat*, generally translated as "impression specimens."

The second edition is a great improvement over the first, but even with its handsome print and convenient size, 6 by 9½ inches, the dictionary is a little disappointing. What the scientist wants is the exact definition, not just "soda"; he can find that in any schoolboy's German dictionary.

Current Medical Literature

AMERICAN

Titles marked with an asterisk (*) are abstracted below.

Archives of Internal Medicine, Chicago

May, XI, No. 5, pp. 469-563

1 *Relation of Gastric and Duodenal Ulcer to Vascular Lesions. W. Ophüls, San Francisco.
2 *Effect of Change of Posture—Without Active Muscular Exertion—on Arterial and Venous Pressures. J. H. Barach and W. L. Marks, Pittsburgh.
3 *Budding and Other Forms in Trophozoites of Entamoeba Tetragena Simulating Spore Cyst Forms Attributed to Entamoeba Histolytica. S. T. Darling, Ancon, Canal Zone.
4 Active Hyperemia following Local Exposure to Cold. A. W. Hewlett, Ann Arbor.
5 *Modified Wassermann. L. O. Thompson, Little Rock, Ark.
6 *Study of Therapeutic Value of Theobromin Sodium Salicylate in Acute Experimental Nephritis. H. A. Christian and J. P. O'Hare, Boston.
7 Case of Infantilism Associated with Hypophysis Tumor. E. J. Mullally, Montreal.
8 Case of Myxedema, with Recovery, and Seven Years' After-Care Notes. E. N. Brush and W. B. Cornell, Baltimore.
9 *"Giant-Cell Pneumonia." H. T. Karsner and A. E. Meyers, Boston.
10 *Determination of Diastolic Pressure in Aortic Regurgitation. A. E. Taussig and J. E. Cook, St. Louis.
11 *Clinical Investigation of Carbonic Acid in Alveolar Air. E. G. Grey, Boston, and A. D. Hirschfelder, Baltimore.

1. **Gastric and Duodenal Ulcer and Vascular Lesions.**—The most common type of gastric (or duodenal) ulcer, in material obtained by Ophüls by necropsy was the arteriosclerotic ulcer in persons over 30 years of age. There is, he says, a second class of gastric (or duodenal) ulcer, in the young, which is probably due to local endarteritis (thrombo-arteritis?). In addition to these, one occasionally observes acute embolic (or thrombotic) ulcers.

2. **Effect of Change of Posture on Arterial and Venous Pressures.**—When the element of mucular effort has been eliminated, the authors found that change of bodily posture from the erect to the horizontal will cause an increase in the maximum pressure, a decrease in the minimum pressure and an increase in the pulse pressure. After five minutes in the horizontal posture when the subject is retilted to the erect posture, the maximum pressure will diminish, the minimum pressure increase and the pulse pressure diminish. It will be noted that in both instances the pulse pressure follows the same trend as the maximum pressure. Change of posture from the erect to horizontal caused a fall in the venous pressure. Change of posture from the horizontal to erect caused an increase of the venous pressure.

3. **Budding and Other Forms in Trophozoites of Entamoeba Tetragena.**—The descriptions of the life cycle of *E. histolytica* by Schaudinn and Craig, in Darlings' opinion, therefore, are in all likelihood those of a spurious species, having resulted from observations of pathologic changes in senile races of *E. tetragena*.

5. **Modified Wassermann.**—Thompson makes use of anti-human amboceptor and a 10 per cent. solution of fresh guinea-pig serum for complement. Alcoholic extract of liver from a syphilitic fetus is used for antigen.

6. **Therapeutic Value of Diuretin in Acute Experimental Nephritis.**—The authors found that diuretin given to rabbits with a severe, fatal exeprimental nephritis, shortens the duration of life of these animals. On the other hand, nine out of twelve rabbits which survived the experiment had received diuretin. This work supports the view that in a severe acute nephritis a diuretic drug, such as diuretin is contra-indicated inasmuch as in the experiments diuretin shortens the lives of the animals. On the other hand, of the survivors a large proportion (three-fourths) had received diuretin. This rather gives support to the view that in less severe cases diuretin may be beneficial and so justifies the cautious use of the drug in moderately severe cases of acute nephritis. In the survivors it is not certain that acute severe renal lesions were produced; consequently deductions from these relatively few survivors are of less value than from the larger number dying during the experiments. Of course, it is realized in making deductions such as the above that they may not be applicable directly to conditions in the human being, for due allowance must be made for the many differences between man and the lower animals. The authors experiments support the view that diuretin as a diuretic drug may be harmful in a case of acute nephritis.

9. **Giant-Cell Pneumonia.**—The case studied by Karsner and Meyers was one of bronchopneumonia of the desquamative type and was associated with an early stage of bronchiolitis obliterans. The authors see no good reason for assigning to the so-called "giant-cell pneumonia" the dignity of classification as a pathologic or clinical entity. The giant-cell formation may occur following a wide variety of causes and is not characteristic of the pneumonias following only measles and pertussis. The giant-cells are almost entirely the product of fusion of alveolar epithelium and present a wide variety of morphologic characters, depending on the line of section. There is no positive evidence for believing that these cells functionate as phagocytes.

10. **Diastolic Pressure in Aortic Regurgitation.**—Taussig and Cook state that with the auscultatory method the beginning of the fourth phase, that is, the dulling of the arterial sound, marks the diastolic pressure. Since this point can readily be made out in aortic regurgitation, the auscultatory method is as applicable to this condition as to any other. The persistent arterial sound is not pathognomonic of aortic regurgitation, being often absent in this disease and occasionally present in other conditions. In cases with very low pulse-pressure, in those with marked dyspnea and in Cheyne-Stokes breathing, the auscultatory method is especially valuable, being often distinctly superior to the graphic method.

11. **Carbonic Acid in Alveolar Air.**—The object of this study was first, to determine if possible whether the feeling of asthenia in convalescent patients and especially in patients who have gotten out of bed for the first time, is associated with the presence of acapnia. Second, whether the latter phenomenon is responsible for these symptoms in patients with enteroptosis. Third, the extent to which acapnia develops in cardiac dyspnea, and its relation to the mechanism of the latter. It appeared that in cardiac disease there are two distinct mechanisms for the production of dyspnea: (1) Stasis and congestion in the pulmonary area, associated with difficulty in aeration of the blood. This may act either by reflex stimulation of the vagus endings in the lung or by increasing the CO_2 in the blood bathing the respiratory center which will give rise to hyperpnea until the CO_2 falls to its normal level. (2) Slow arterial circulation through the medulla, as in arteriosclerosis, aortic insufficiency and general failure of the circulation, which gives rise to symptoms of lack of oxygen in the latter and the formation of acids there quite independent of the CO_2. This acid intoxication overstimulates the respiration and gives rise to over-ventilation of the lungs, acapnia, and probably sometimes Cheyne-Stokes breathing, for Pembrey and his collaborators have shown that the latter can be stopped by inhalations of CO_2. It is probable that such cases can be benefited by rebreathing, but we have not been able to answer this question as yet.

They had one patient with Adams-Stokes disease with complete heart-block, who was not having any attacks of dyspnea at the time of determinations, whose alveolar CO_2 was normal.

A number of observations were made on pregnant women near term who had slight dyspnea, most of whom were a little below the lower limits of normal, which might be easily accounted for on purely mechanical grounds, though the possibility of a mild acidosis such as has been assumed by Porges and his collaborators cannot be excluded.

Boston Medical and Surgical Journal

June 5, CLXVIII, No. 23, pp. 825-864

12 *Studies in Bacterial Metabolism: Relation of Bacterial Metabolism to Internal Medicine. A. R. Kendall, Chicago.

13 *Common Colds and Vaccine Therapy. J. W. Fisher, Middletown, Conn.
14 *Etiologic Factor in Carcinoma and Its Possible Influence on Treatment. H. W. Nowell, Boston.
15 Neglect of Hydrotherapy in America. J. H. Pratt, Boston.
16 Appendix Excisor. J. E. Briggs, Boston.

12. **Bacterial Metabolism and Internal Medicine.**—Evidence both qualitative and quantitative, is presented by Kendall, illustrative of the nature and extent to which utilizable carbohydrate spares protein and protein derivitives from bacterial attack. The carbohydrate protects protein largely from bacterial break down.

The sparing action is not complete, but it results in the practical elimination of nitrogenous products, incidental to bacterial development, some of which may be toxic, and the substitution for them of substances which are non-nitrogenous, which may be irritative, but probably never truly toxic. This evidence has been introduced here chiefly to indicate how the principle involved may be made use of theoretically in the treatment of diseases of bacterial origin, where the anatomic features of the disease are such as to permit the utilization of carbohydrate by the invading micro-organisms. The object of the diet rich in carbohydrate is twofold: physiologically to provide the patient with a readily assimilable food requiring a minimal amount of digestive energy to prepare it for the tissue needs, and bacteriologically to shift bacterial metabolism from the destruction of body tissue for their food requirements to the utilization of carbohydrate for at least the major part of their dietary needs. This does not directly result in annihilation of the invading bacteria, but it certainly approaches their metabolic reformation. The shifting of metabolism to sugars appears to deprive these microbes of one of their most potent weapons of offense, and forces them to act on the defensive; forcing the parasite to act on the defensive theoretically at least permits the host to rally and to strengthen its defensive and even its offensive powers earlier in the battle. The initial damage, brought about when the host is temporarily overwhelmed by the initial onslaught of the invaders (which is accomplished largely during the incubation period of the disease) cannot be estimated at present, and perhaps cannot be undone. The final struggle between host and parasite can be influenced directly, and favorably.

13. **Common Colds and Vaccine Therapy.**—Fisher is convinced that colds, so-called, are unquestionably due to infection by micro-organisms and therefore are contagious. They can largely be prevented by reasonable isolation of every case, and preventive inoculation. They can be aborted or their course shortened by vaccine treatment; in fact, the treatment of acute and chronic inflammation of the respiratory tract by vaccines is specific.

14. **Etiologic Factor in Carcinoma.**—Nowell summarizes his paper as follows: A procedure has been developed whereby a substance or substances may be isolated from carcinomas, the method precluding the presence of organic life in the end product. This end product has been shown to be of a highly toxic character. The peritoneal exudate produced by a fatal intoxication is far more toxic than the original substance. The tumor substance has been shown to possess not only a general but also a specific toxicity, since on injection into rabbits in doses of less than lethal amount it will produce well-defined, well-characterized, carcinomas, the site of the primary lesion being different from and independent of that of the injection. The appearance of the primary lesion is followed by the development of numerous metastatic foci in different parts of the body, while the characteristic cachexia manifests itself. The poisonous tumor preparation has been shown to be characteristic of carcinomas. By the repeated injection of very small doses a large number of rabbits have been immunized. The serum from the animals thus immunized possesses the power of antagonizing the toxic action of the tumor substance. This has been demonstrated by injections of the serum either previous to or simultaneous with that of the tumor poison. In both events no effect is observed from quantities of the poison which, if injected alone, would produce a rapidly fatal intoxication. With the simultaneous injection of poison and antibody it has been shown that one part of the latter will effectually antagonize ninety-nine parts of the former.

Bulletin of American Academy of Medicine, Easton, Pa.

June, XIV, No. 3, pp. 186-244

17 Immigration of Tuberculous into United States: Problem for Every Nation. S. A. Knopf, New York.
18 Immigration and Midwife Problem. I. S. Wile, New York.
19 Trachoma in Modern Immigrant, and Its Dangers to America. C. P. Franklin, Philadelphia.
20 Desirability of Teaching Preventive Medicine in Higher Institutions of Learning. H. B. Hemenway, Evanston, Ill.
21 Open-Air Schools. T. W. Grayson, Pittsburgh.
22 Medical Inspection of Schools. E. W. Goodenough, Waterbury, Conn.
23 The Well-Fed Child. A. L. Benedict, Buffalo.
24 Teaching of First Aid in Schools. C. A. Kinch, New York.

Bulletin of Johns Hopkins Hospital, Baltimore

June, XXIV, No. 268, pp. 167-198

25 Specialism in General Hospital. W. Osler, Baltimore.
26 Some Modern Problems in Nutrition. F. Knoop, Freiburg, Germany.
27 Wassermann Reaction in Johns Hopkins Hospital. R. H. Major, Baltimore.
28 *Excessive Thickening of Thiersch Grafts Caused by Component of Scarlet Red (Amidoazotoluol). J. S. Davis, Baltimore.
29 Subsequent History of One Thousand Patients Who Received Tuberculin Tests. J. Gellen and L. Hamman, Baltimore.
30 *Influence of Contents of Pulmonary Artery on Experimental Pulmonary Tuberculosis. W. C. White, Pittsburgh.
31 Physician's Opportunity in Preventive Medicine. J. B. Hawes, Boston.

28. **Excessive Thickening of Thiersch Grafts.**—In a case of extensive ulcer of the arm following a burn the granulations of the wound were brought into healthy condition by irrigations, free use of nitrate of silver, balsam of Peru, curved scissors, etc. At the same time very marked progress was also made toward healing by stimulating the wound edges with 4 per cent. amidoazotoluol ointment, alternating every twenty-four to forty-eight hours with zinc oxid or boric ointment. A number of large thin Thiersch grafts were buttonholed and applied over a large part of the unhealed area. Rubber impregnated mesh was placed snugly over the grafts, and over this overlapping strips of protective, dry gauze and a bandage. Four per cent. amidoazotoluol ointment on old linen was laid over the rubber mesh. This dressing was alternated with boric ointment every twenty-four hours. After two weeks the greater portion of the grafts had taken. There had been a remarkable gradual thickening of all the grafts. The surface was smooth but rather uneven, and of a bluish grey color. The appearance was that of an edematous epithelial mass. The thickness varied between ⅛ and ¾ of an inch. Davis felt convinced from his experience with occasional overgrowths of wound edges and other grafts caused by the organic coloring matters, that this thickening would begin to subside as soon as the stimulants should be removed. The thickened grafts were dressed with stearate of zinc powder and exposed to the air, in order to promote drying. The amidoazotoluol was discontinued. There was no excessive thickening of the wound edges. Six months later the arm was covered with a stable, movable skin, which was heavily pigmented. On careful examination one or two small thickened areas could be found on the inner side of the arm. There were also several comedo-like masses which filled minute pockets in the skin. The patient has been under observation for over two years and a half since his discharge from the hospital, and there is no sign of malignant degeneration anywhere.

30. **Influence of Contents of Pulmonary Artery on Experimental Pulmonary Tuberculosis.**—White is convinced that there is some close relation between the content of the fats and split fat substances in the pulmonary stream and the severity of experimental pulmonary tuberculous lesions. Increasing the percentage of carbohydrate content of the pulmonary stream by the influence of extracts of the suprarenal gland, has no influence on experimental pulmonay tuberculo-

sis. The inhalation of such fat solvents as ether, continued over long periods of time, has no direct influence on experimental pulmonary tuberculosis.

Journal of Medical Research, Boston

May, XXIII, No. 1, pp. 1-234

32 *Endothelioma of Lymph Nodes. J. Ewing, New York.
33 Typhoid-Like Disease in Rabbits Caused by Bacillus Sulpesticus, with Particular Reference to Clinical Course and Prophylactic Vaccination. T. Ordway, E. Kellert and F. P. Huested, Albany.
34 Persistence of B. Abortus, Bang, in Tissues of Inoculated Animals. M. Fabyan, Boston.
35 Presence of B. Abortus in Cow's Milk. M. Fabyan, Boston.
36 *Biology of Tubercle Bacillus. T. Smith, Boston.
37 *Infection in Pulmonary Tuberculosis. O. T. Avery and H. W. Lyall, Brooklyn.
38 Experimental Agglutinative and Hemolytic Transfusions. R. Ottenberg, D. J. Kaliski and S. S. Friedman, New York.
39 *Leprosy Bacillus: Its Cultivation and Differentiation from Other Acid-Fast Species. C. W. Duval and W. H. Harris, New Orleans.
40 Experimental Production of Pernicious Anemia in Rabbits. H. M. Adler, Boston.
41 Glomerular Lesions in Acute Experimental (Uranium) Nephritis in Rabbit. H. A. Christian and J. P. O'Hare, Boston.

32. **Endothelioma of Lymph-Nodes.**—Extreme grades of endothelial hyperplasia, Ewing claims, are not infrequently associated with and dependent on granulomatous infection of lymph-nodes, and these cases demonstrate the capacity of endothelium to respond to inflammatory irritation with extensive proliferation. In some cases it is difficult or impossible to determine whether this overgrowth is simply inflammatory or independent of the irritant, autonomous and neoplastic. The long continued effects of a granulomatous infection may lead to neoplastic growth of lymphatic endothelium, and in the course of a granulomatous infection of lymph-nodes, after repeated operations, the granulomatous element may be eliminated and the disease progress as a form of neoplasm. Granulomatous infection of lymph-nodes may very early give rise to excessive overgrowth of endothelium of distinctly anaplastic type, and with local aggressive properties. Such malignant endotheliomas may arise without any evidences of an associated granuloma. It is possible to conceive that an original infectious focus may be overgrown and obscured by the neoplastic cells. No definite evidence of such an event has been secured, but it has been shown that one node of a chain may exhibit purely neoplastic overgrowth while others show chiefly granuloma. Certain endotheliomas of lymph-nodes designated as diffuse, plexiform, perivascular or alveolar, are probably derived from the endothelium of lymph sinuses and lymph cords. Certain primary tumors of lymph-nodes, with or without associated granuloma, are probably derived from the reticulum cells of the follicles. These tumors resemble lymphosarcoma with large cells, and may be distinguished from tumors of small lymphocytes. Endothelioma or lymph-nodes differ from other neoplasms in several particulars and may be regarded as a disease sui generis, although, nevertheless, essentially neoplastic.

36. **Biology of Tubercle Bacillus.**—Smith states that tubercle bacilli of both human and bovine type, when kept in fully developed cultures at 40 to 50 F. may remain infectious to guinea-pigs for from seven to nineteen months. The number of bacilli surviving in such cultures is relatively small. Many tubercle bacilli from easily cultivated strains which fail to multiply on fresh culture media will multiply in guinea-pigs. In one of the experiments one-fifteen-hundredth of the mass which failed to grow on glycerin agar was still capable of producing generalized tuberculosis. Of the two strains tested side by side the bovine was more resistant than the human strain. This may be in part accounted for by the fact that the human type produces much more acid in 5 per cent. glycerin bouillon than the bovine type after two to four weeks of growth. It may also be due to a greater inherent resistance of the bovine type. In all experimental studies bearing on the behavior and fate of tubercle bacilli in the animal body, Smith says, the character of the culture must be taken into account and its history should be known before arriving at any definite conclusions.

37. **Secondary Infection in Pulmonary Tuberculosis.**—The sputum in five cases of bronchiectasis and fifteen cases of pulmonary tuberculosis, in Stages 1, 2 and 3, was washed by the Saranac Laboratory modification of the Kitasato method and the organisms present isolated and identified. The flora found differs little from that reported by Hastings and Niles in a series of cases of non-tuberculous diseases of the respiratory tract; and from the findings it is difficult to draw inferences concerning their clinical significance. Blood-cultures were made on five cases of bronchiectasis, seven incipient, sixty-five moderately advanced, and thirty-eight far advanced (including eight terminal) cases of pulmonary tuberculosis. In no case was the presence of a secondary bacteriemia demonstrated.

39. **Leprosy Bacillus.**—The acid-fast bacillus known in the human leprous lesion as the Hansen organism can be cultivated *in vitro* under special nutritive conditions. The initial multiplication away from the tissues of the host occurs in the presence of the split-products of animal protein. Although it is reasonable to expect that the sub-culture will in time adapt itself to grow on other food-stuffs, so far all attempts in this direction have been unsuccessful. Cultivation experiments indicate that the leprosy organism is unable to attack the whole protein, which would account for the failure of different investigators to propagate the bacillus on the ordinary laboratory media. The readiness with which the Hansen bacillus multiplies in excised pieces of leprous nodules that have been hydrolized or have undergone autolysis and its inability to grow in the unaltered tissue, or in any medium which does not contain the amino-acids, support this hypothesis.

In the experience of the authors, growth of *B. leprae* is extremely slow even under the most favorable artificial conditions, requiring from eight to ten weeks to attain its maximum, at which time it is only comparable in amount to the growth of *B. influenzae*. The accumulation of the leprosy growth from week to week, which is so characteristic of other acid-fast species, apparently does not occur with the Hansen bacillus. The most efficient method for obtaining the initial growth of *B. leprae* is to transfer bits of the leprous nodule to slanted 1 per cent. alkaline nutrient agar and seed with some one of the proteolytic non-spore-bearing bacteria, which in the course of ten days to two weeks at 37 C. digest the protein sufficiently to cause the contained Hansen rods to multiply. It is essential to have the medium alkaline in order to inhibit too profuse a growth of the hydrolizing organism. In the softened tissue the Hansen bacilli increase steadily and continue to do so in transplants to other media as long as the dissociate products of the host tissue lasts. The organism used to hydrolize the tissue is subsequently eliminated by heating the culture at 60 C. for thirty minutes (Clegg's method) which does not affect the viability of the Hansen rods. While multiplication takes place readily in the digested host tissue, growth ceases on other nutrients unless there is added the intermediate products of protein digestion such as the filtered autolized liver, blood-serum, placenta, etc..

Comparative biologic studies indicate that the Clegg type of leprosy organism is closely related to the moist growing pigment-producing group of acid-fast saprophytes, while the Levy and Kedrowski cultures, which are apparently the same, correspond in some respects to avian tubercle and in others to Moeller's smegma bacillus. The Rost and Williams' culture is identical with Grassburger's acid-fast saprophyte, while Karlinski's culture is not to be distinguished from Rabinowitch's butter bacillus. The serum of rabbits immunized against repeated doses of the Hansen bacilli obtained directly from the uncontaminated human leprous nodule reacts significantly with the "slow-growing" acid-fast culture (Duval), and gives no specific reaction with any of the other so-called lepra cultures.

The experimentally induced lesion affords no reliable means of differentiating acid-fast species other than the tubercle

family, since the lesion in all instances has the same general gross appearance. Furthermore, it is not possible to establish an etiologic part for any culture isolated from the human leper on the microscopic character of the experimentally induced lesion since the identical picture may be produced with cultures of timothy hay, butter, milk and smegma bacilli. The specific organism of human leprosy whether *in vitro* or *in vivo* is distinctly acid-fast, which feature is as constant for this species as it is for *B. tuberculosis*. Differences in size and shape of individual bacilli are frequently noted in the same culture; however, these morphologic variations, which are often striking in their resemblance to certain forms of the diphtheria group, may be regarded simply as involution types. Non-acid-fast streptothrical and filamentous forms, which have been described as "stages" of the Hansen organism by Kedrowski and others, have not been noted for any culture isolated by the authors. The specific microorganism of human leprosy is undoubtedly a schizomycete, *genus bacillus*, and not a trichomycete, *genus streptothrix*, any more so than the tubercle bacillus.

Medical Record, New York

June 7, LVIII, No. 23, pp. 1013-1058

42 *Prophylactic and Therapeutic Value of Fresh Air in Schools and Hospitals, Including Heliotherapy. J. W. Brannan, New York.
43 The "Rob." (Syphilis Specific.) J. B. Stein, New York.
44 Acid Test in Therapeutics. J. Aulde, Philadelphia.
45 Personal Experiences with Friedmann Treatment of Tuberculosis. G. Mannheimer, New York.
46 Relation of Syphilis to Progressive Muscular Dystrophy. W. B. Cadwalader and E. P. Corson-White, Philadelphia.
47 New Contagious Gangrene in White Rats. L. K. Hirshberg, Baltimore.

42. **Value of Fresh Air in Schools and Hospitals.**—Brannan urges that not only patients with pulmonary tuberculosis or with surgical tuberculosis should live in the open air, but that all patients, whatever their disease may be, and all school children, whether predisposed to tuberculosis or not, shall be placed in an atmosphere approximately the same as that out of doors. He reviews what has been done in this direction by various institutions. At Bellevue Hospital, for instance, every ward has at least one balcony attached to it, so that every patient, whatever his disease, may have the benefit of the outdoor air which in the past has been thought necessary only for tuberculous patients. In addition to the balconies there are large wide loggias and extensive lawns and roof gardens at all the hospitals but one. Gradually storm sashes and louvre windows are being added to the balconies so that even in the winter the patients can be moved out of doors, one or more sides of the balconies being always open for the free entrance of the outer air.

The effect of open air on the acute insane is very beneficial, especially in the excited and restless. It has a quieting influence and induces sleep. The same is true of the alcoholic patients. The fresh air and oxygen seem to furnish the stimulation which they greatly need, so that they eat and sleep well. The tremulousness and anorexia and mental depression disappear very quickly. In functional nervous diseases the value of the open air treatment is generally recognized. It induces sleep, improves the appetite, and supplies the general stimulation which patients of that class require. Patients after severe operations gain rapidly when taken out of doors. In critical cases the stimulus of the fresh air often seems to turn the tide.

New York Medical Journal

June 7, XCVII, No. 23, pp. 1165-1216

48 Unconscious Factors in Neuroses. A. A. Brill, New York.
49 Two Cases of Gall-Stones Producing Pyloric and Jejunal Obstruction. W. W. Babcock, Philadelphia.
50 Changes in Treatment of Syphilis. W. S. Gottheil, New York.
51 Quantitative Chemical Reaction for Control of Positive Wassermann Results. D. M. Kaplan, New York.
52 Problem in Local Recurrent Breast Cancer. C. W. Stroebell, Rutland, Vt.
53 Case of Meningomyelocele; Anencephalus; Ablation of Placenta. F. M. Myers, Mt. Vernon, N. Y.
54 Treatment of Endometritis. G. G. Ward, New York.
55 Measles: Periodic Cycles of Virulence. H. A. Brown, Washington, D. C.
56 Deleterious Effects of Salvarsan from Otologic Standpoint. A. Kahn, New York.
57 Use of Metranoikter in Treatment of Dysmenorrhea and Sterility. P. F. Williams, Philadelphia.

Old Dominion Journal of Medicine and Surgery, Richmond

May, XVI, No. 5, pp. 213-258

58 How Far Have We Got with Clinical Use of Internal Secretions? W. N. Berkeley, New York.
59 Diagnosis of Delirium Caused by Drugs. L. Casamajor, New York.
60 Allotment of Renal and Ureteral Stones in Shadow Diagram of Body. H. A. Kelly, Baltimore.
61 Etiologic Factor in Gall-Bladder Disease. S. S. Gale, Roanoke, Va.
62 Sliding Rectum in Cure of Various Defects. C. R. Robins, Richmond, Va.

Pennsylvania Medical Journal, Athens

May, XVI, No. 8, pp. 595-678

63 Some Phases of Insanity Problem. J. H. W. Rhein, Philadelphia.
64 *Bacteriology of Catarrh and Common "Colds." A. P. Hitchens, Glenolden.
65 Hypopyon Ulcer of Cornea and Its Treatment. C. M. Harris, Johnstown.
66 Value of Pyelography in Diagnosis of Surgical Diseases of Kidney. F. E. Keene, Philadelphia.
67 Benign Pyloric Stenosis. L. J. Hammond, Philadelphia.
68 Diagnosis and Treatment of Gastric and Duodenal Ulcers. S. D. Molyneux, Sayre.
69 *Early Diagnosis of Cancer of Stomach. J. H. Musser, Philadelphia.
70 *Surgical Aspects of Epigastric Pain. J. H. Jopson, Philadelphia.
71 Few Points in Visceral Ptosis. W. S. Newcomet, Philadelphia.
72 Streptococcic Infection of Both Eyes. F. W. Frankhauser, Reading.

64. Abstracted in THE JOURNAL, Oct. 19, 1912, p. 1479.

69 and 70. Abstracted in THE JOURNAL, Nov. 16, 1912, pp. 1815 and 1816.

South Carolina Medical Association Journal, Seneca

May, IX, No. 5, pp. 107-137

73 Maritime Quarantine. R. L. Wilson, Charleston.
74 Work of Laboratory of State Board of Health. F. A. Coward, Columbia.
75 School Sanitation. L. R. H. Gantt, Spartanburg.
76 Home Sanitation. W. Egleston, Hartsville.
77 Relation of Domestic Animals to Public Health. G. M. Mood, Charleston.

FOREIGN

Titles marked with an asterisk (*) are abstracted below. Single case reports and trials of new drugs are usually omitted.

British Medical Journal, London

May 17, I, No. 2733, pp. 1037-1092

1 *Internal Secretions in Relation to Dermatology. N. Morris.
2 Some Points in Early Diagnosis of Cancer of Stomach. T. J. Horder.
3 Instance of Large Ureteral Calculus and Some Other Cases of Calculi. G. Wherry.
4 Treatment of Congenital Dislocation of Hip. A. S. B. Bankart.
5 Four Cases of Parotid Tumor. A. Street.
6 Chronic Arthritis: Therapeutic Evidence of Incidence of Streptococcal Infection. D. W. C. Jones.
7 Sequel of Case of Cardiolysis. R. Simon.
8 Analysis of Series of Cases of Hypertension and Hypotension Treated at Vittel. H. J. Johnston-Lavis.
9 Roentgenotherapy of Diseases of Palm. H. Davis.

May 24, No. 2734, pp. 1093-1144

10 Treatment of Pernicious Anemia. B. Bramwell.
11 Six Cases of Acute Perforation of Gall-Bladder. L. R. Braithwaite.
12 Incidence of Ophthalmia Neonatorum in London. N. B. Marman.
13 *Preliminary Note on Experimental Investigation of Concussion of Spinal Cord and Allied Conditions. A. Newton.
14 Pseudo-Fractures of Transverse Processes. O. L. Rhys.
15 Tetanus Treated with Intraspinal Injections of Magnesium Sulphate. H. L. Tidy.
16 Cesarean Section, with Special Reference to Rarer Indications for Operations. W. H. Maxwell.

1. **Internal Secretions in Relation to Dermatology.**—The influence which the thyroid, the pituitary, the thymus and other glands exert on metabolism and growth, and so on the nutrition of the integument and its appendages, suggests to Morris that further knowledge of their nature and functions will help to solve some of the many perplexing problems of dermatology. Bacteriology has accounted for not a few skin diseases, and vaccine therapy and serotherapy have now a recognized place in dermatologic therapeutics; but there is still a disconcertingly long list of skin affections of which the cause is unknown and the treatment purely empirical. May it not be, he asks, that of some of these the explanation will be found in overaction or underaction of glands that form secretions at once so potent and so difficult of analysis? The fact that animals from which the hypophysis has been partially removed betray diminished power of resistance to infections, and that pituitary hyperplasia has been found associated with bacterial intoxications, may possibly prove to be charged with significance. It is conceivable that irregularity of this or of other organs of internal secretion may be the direct cause of certain obscure skin diseases, and that in others it may induce the predisposing condition which is the opportunity of bacterial or other pathologic influences. Thus, too, may possibly be explained the tendency of so many skin affections to recur after the lesions have disappeared under empirical treatment. Morris thinks that the results yielded by organotherapy in a considerable number of skin affections are sufficient to warrant a more extensive use of this method of treatment in dermatology.

13. **Concussion of Spinal Cord.**—Experiments were performed by Newton on fifty animals—three monkeys, eight dogs and thirty-nine cats. The spinal cord was exposed by a laminectomy between the fourth and eighth dorsal vertebrae, but the dura was not opened except in two cases of slight compression, for two and five minutes respectively. The provisional conclusions drawn by Newton from his experiments are as follows: 1. The spinal cord is extremely sensitive to slight degrees of concussion and compression. 2. Despite the slight anatomic changes demonstrable after lesser degrees of injury, the resulting disturbance of function is considerable. 3. After concussion which has quite abolished motor efferent conduction, sensory conduction can still be demonstrated. 4. Arrest of the spinal cord circulation by aortic compression abolishes spinal cord function in from fifteen to thirty seconds. 5. These experiments support the view that there is an organic basis for the signs and symptoms of "railway spine" and allied conditions of traumatic neurasthenia.

Lancet, London

May 17, I, No. 4681, pp. 1363-1434

17 *Some Points in Determining Signification of Albuminuria in Pregnancy. H. Williamson.
18 Alimentary Toxemia. J. F. Goodhart.
19 Influence of Chronic Sepsis on Eye Disease. W. Lang.
20 *Relationship of Thyroid to Alimentary Toxemia. F. Langmead.
21 Indications of Nerve Lesion in Certain Pathologic Conditions of Blood-Vessels. T. W. Todd.
22 Abnormal Intra-Abdominal Developmental Adhesions. H. M. W. Gray and W. Anderson.
23 Chloretone Overdosage. W. E. Wynter.
24 *Bacteriology of Cholera. J. A. Turner.
25 *Etiology of Rheumatoid Arthritis. H. W. Crowe.
26 Use of Vaccines in Treatment of Rheumatoid Arthritis. A. B. Soltau.
27 *Case of Volkmann's Ischemic Contracture of Hand. G. De Swietochowski.
28 Case of Gonorrheal Warts on Face Successfully Treated by Vaccine. W. E. M. Armstrong.

May 24, No. 4682, pp. 1435-1506

29 Electrical Action of Human Heart. A. D. Waller.
30 Alimentary Toxemia. W. H. White.
31 Growths in Gall-Bladder and in Bile Ducts. S. Phillips.
32 Dangers and Complications of Salvarsan Treatment. H. W. Bayly.
33 Case of Phthisis with Complete Cavitation of Left Lung. D. W. Carmalt-Jones and E. S. Worrall.
34 *Method of Counting Bacteria in Water. R. Donald.
35 Case of Facio-Hypoglossal Anastomosis. E. C. Bevers.

17. **Albuminuria in Pregnancy.**—In fifty cases of normal pregnancy, Williamson found neither acetone nor diacetic acid. The cases of chronic nephritis in pregnant women were examined; in ten both these bodies were absent, in five both were present. The urine from twenty patients with chronic nephritis in the non-gravid was examined; two of the patients had previously had uremic convulsions; in none of these twenty cases were either acetone or diacetic acid discovered. Williamson believes that a condition of acidosis is found constantly in cases of pregnancy toxemia when the lesions are of a certain grade of severity, and is not found in cases of chronic nephritis even when the symptoms are severe; and, further, that the onset of an acidosis in the course of a chronic nephritis in pregnancy may be interpreted to mean that toxemia has been added to the existing lesions. In a number of early cases Williamson could find no evidence of acidosis, and in several instances where the symptoms passed away under treatment the ammonia-urea coefficients remained normal, and acetone and diacetic acid were never demonstrated in the urine.

For the detection of acetone a modification of Rothera's test was employed: 5 c.c. of urine are shaken up in a test-tube with ammonium sulphate until saturated, 0.5 c.c. of strong ammonia added, and then three or four drops of a freshly prepared solution of sodium nitro-prusside; if acetone be present a beautiful purple color is produced. The presence of diacetic acid was demonstrated by the well-known ferric chlorid test.

Williamson does not believe that the symptoms are due to the acidosis; indeed, these results definitely disprove this theory, because the symptoms are often present in a mild form before one can find any evidence of acidosis, but the results of treatment have convinced Williamson that if the acidosis is diminished the severity of the symptoms is alleviated. In severe cases of eclampsia he has seen marked improvement follow intravenous infusion of solutions of sodium acetate and sodium bicarbonate.

Williamson draws attention to some important points in treatment. 1. In cases of pregnancy toxemia chloroform should never be administered, because the action of chloroform is to render more grave the lesions which already exist and to increase the acidosis. Ether administered by the open method is in every way preferable as an anesthetic. 2. Calomel should not be used as an aperient, for the lesions in the liver and kidney produced by mercurial poisoning are of the same nature as those of pregnancy toxemia, and it is probable that mercury even in small doses will increase the gravity of the lesions already existing. 3. For a similar reason douches of mercurial antiseptics should never be employed. 4. In all cases in which acidosis is present intravenous infusion with a solution of sodium bicarbonate or sodium acetate should be practiced. 5. The fat metabolism should be spared as far as possible by the administration of glucose. Williamson's practice has been to administer it by the rectum when vomiting is present and to give it by the mouth in the form of glucose lemonade where the digestive functions are not deranged. 6. When a pregnant woman suffering from chronic nephritis shows evidence of the existence of acidosis, the uterine contents should be evacuated without delay, for with a kidney previously damaged the prognosis of pregnancy toxemia is very grave.

20. **Thyroid and Alimentary Toxemia.**—The thyroid, Langmead says, is a gland a useful function of which is to counteract intoxication. One of the sources of this intoxication is probably the bowel. If the intoxication be proportionately great for the gland, it undergoes hyperplasia and visible enlargement. If the amount of intoxication can be lessened the extra burden is removed and the gland diminished. This has been done by the use of thymol and of vaccines, especially those prepared from cultures of the coliform organisms obtained from the patient's own intestinal flora.

24. **Bacteriology of Cholera.**—From his investigations during the recent outbreak of cholera in Bombay, Turner draws the following conclusions: 1. The comma vibrio is present in

the excreta of persons dying of or suffering from cholera. 2. The vibrio persists until some time after the patient is convalescent, but not indefinitely. 3. In times of cholera epidemic the vibrio is found in waters, wells, tanks, vessels, etc., but it does not retain its morphologic and cultural characteristic or its virulence for any length of time. 4. An outbreak of cholera depends on: (a) the strength and quality of the dose of the virus received; (b) the condition of the infected material which gains access to the intestine; (c) the physical condition of the patient and his power of resistance; (d) certain climatic conditions, and (e) sanitary surroundings of the people—water, food, drainage and refuse disposal, and the habits of the people. 5. When the vibrio leaves the infected person it loses its virulence in direct ratio to the time and conditions to which it is subjected.

25. **Etiology of Rheumatoid Arthritis.**—During more recent investigations the two groups of organisms described by Crowe as diploid streptococci and staphyloid cocci, respectively, in a previous paper have been subdivided, the former into three varieties of streptococci, the latter into some six distinctly different organisms. Staphyloid coccus A, staphyloid coccus B, staphyloid coccus C, staphyloid cocci D and E, staphyloid coccus F. Out of twenty-two cases of rheumatoid arthritis, nineteen were almost certainly infected by staphyloid coccus A. This coccus appears on Fleming's medium first as a rose-red colony, which gradually increases in size and deeply indents the medium. It then spreads out and assumes the appearance of a flattened plate. On subculture it maintains these characteristics and does not alter in color. Its other peculiarities are that blood is slightly hemolyzed; that litmus milk is turned acid, clotted and usually decolorized; and that gelatin is liquefied very slowly, or not at all. Maltose and lactose are reduced, but not mannite; glycerin may or may not be. The shape and color of the colony on neutral red egg medium are, however, the two points on which it is perfectly safe to found a diagnosis. This coccus occurs with remarkable frequency in rheumatoid arthritis. Is the connection between them causal, or is it merely casual? asks Crowe.

27. **Volkmann's Contracture of Hand.**—The treatment in this case was directed first toward overcoming the contraction of the antagonists by means of passive movements, massage and various splints, their shape and application being altered practically every week. De Swietochowski applied every day Bier's elastic bandage for about fifteen to twenty minutes before the massage and exercises started. This seemed to help in softening all tissues, filling their vessels more abundantly with blood. This procedure was, however, apparently a little painful, or rather felt "queer" as the patient declared. Therefore he substituted active hyperemia for the passive hyperemia, giving her every day a hot or warm bath before any manipulations were commenced. This proved to be pleasanter and equally beneficial. De Swietochowski has also found elastic extension of great service as applied to the fingers by means of rubber tubes.

34. **Counting Bacteria in Water.**—Donald's method of enumerating bacteria in water consists in taking a small definite-sized drop of the water, drying it in a circular patch on a slide, fixing effectively the circular film, staining clearly the bacteria present, and counting them under the microscope. The definite size of the drop is determined by the outer circumference of the vertically held clean glass pipet at the level where the drop-surface curving upward and inward joins the outer surface of the pipet point and clings round it. This particular size of pipet gives exactly that definite-sized drop of that liquid only at a particular rate of dropping and a particular temperature. The pipets are gauged to any particular size required in the proper hole of a steel gauge plate such as is used for wire. The gauge sizes most used in the work done by Donald are as follows, the drop-rate being one per second and the temperature 20 c.:

	Size	Diam. mm.	Corresponding to Drops of Water Each
Morse drill and wire gauge.....	77	0.457	1/101 c.c.
	80	0.34	1/131 c.c.
French draw-plate	8	0.29	1/173 c.c.

The bacteria may be stained before dropping by adding a small quantity of bacteria-free methyl-violet solution and heating for a few minutes in a bath at 60 C. But the drop when dried has so many stain-granules and sharp circular droplets of stain that even an approximate count demands much careful scrutiny and much time.

Journal de Médecine de Bordeaux

May 11, XLIII, No. 19, pp. 289-304

36 *Antimeningococcus Serotherapy of Gonorrheal Arthritis. P. Lasserre.
37 Morbidity from Drafts, Especially in Barracks. M. Vennat.
38 Sudden Reflex Death on Commencing Attempt to Induce Abortion. (Mort subite au cours de manœuvres abortives.) P. Lande.

36. **Antimeningococcus Serotherapy in Gonorrheal Joint Disease.**—Lasserre states that this treatment has proved very successful in France. It seems to be peculiarly effectual in subacute gonorrheal arthritis with a tendency to septicemia, and in the acute forms with effusion or a tendency to ankylosis, while chronic gonorrheal arthritis rebellious to other measures has been often favorably modified by it. Only when the arthritis is accompanied by tuberculous lesions does it seem to be refractory to this form of serotherapy. Four or five injections in the buttocks every four or five days are generally sufficient, with 0.20 or 0.30 gm. at each dose. He reports an instructive case in a man of 25 who developed a joint process a few weeks after infection with gonorrhea. The primary urethral process was so mild that he did not consult a physician, but after a few weeks there was almost continuous fever and pain in both knees and wrists but finally the gonorrheal arthritis seemed to settle exclusively in the right wrist with much swelling and pain. By the fifteenth day after the first of the four injections of 0.2 gm. each, the patient was able to return to business apparently entirely cured of his joint trouble, and the urethra symptoms had also materially improved. Except for a slight rise of temperature after each injection, no by-effects were noted.

Presse Médicale, Paris

May 10, XXI, No. 38, pp. 377-388

39 The Physico-Biologic Bases for Heliotherapy. A. Zimmern.

May 14, No. 39, pp. 389-396

40 *Chronic Amebic Dysentery. A. Chauffard.
41 Production of Heat in Relation to the Sugar Content of the Blood. (Thermogénèse et glycémie.) H. Bierry.

40. **Efficacy of Emetin in Amebic Dysentery.**—Chauffard remarks that in 81 per cent. of 100 cases of amebic dysentery on record the rectum was involved; this differentiates the disease by the discovery of the characteristic lesions in the rectum, the "zinc intestine." He reports a case in which the true cause of the dysentery was long unrecognized as physicians seldom think of the possibility of amebic dysentery in a person who has never lived in the tropics; the patient was sent to health resorts and given treatment of all kinds for his diarrhea, but no medication gave more than merely transient if any improvement for nearly ten years. Then he was given a course of emetin, 0.32 gm. in eight injections in one week, and at once the dysentery was arrested and the patient seems to be completely cured. To make sure, he is to be given a second course later. Rogers of Calcutta, who inaugurated the emetin treatment, had an oportunity to examine the intestines of two patients who had been cured by the emetin and had been killed in accidents. He found the old amebic lesions entirely healed over. He insists that if no improvement is apparent under emetin in two or three days the dysentery is not the work of the ameba. (See also Paris Letter in THE JOURNAL, June 14, p. 1896.)

Revue de Chirurgie, Paris

May, XXXIII, No. 5, pp. 633-784

42 *Inflammation of Synovial Tendon Sheaths with Concretions Resembling Rice. (Anatomie pathologique de la synovite tendineuse à grains riziformes et mode de formation de la limitante et des grains.) E. Forgue and E. Etienne.
43 *Jejunostomy. L. Bérard and H. Alamartine.

42. **Inflammation of Tendon Sheaths with Concretions Resembling Rice.**—Forgue and Etienne give six plates to accompany their study of the pathologic anatomy of this affection. The data presented confirm the assumption that the trouble is due to destructive processes and cicatrization in the tuberculous follicles under the action of the toxins of the tubercle bacilli.

43. **Jejunostomy.**—Bérard and Alamartine had a patient die from mechanical obstruction as the jejunum became kinked at the point of the jejunostomy done according to the Witzel-Eiselsberg technic. They have found on record five other cases of a fatality following this technic. These experiences convinced them of the necessity of improving on this method, and they report a case in which they applied with success a modification of the Greek letter omega technic. It requires the use of a button but it prevents all danger of kinking, and the operation is remarkably simple and easy and ensures perfect continence, they say.

Semaine Médicale, Paris

May 14, XXXIII, No. 5, pp. 229-240

44 *Research on Anaphylaxis. (Les propriétés cryptotoxiques du sérum.) C. Achard.

May 21, No. 21, pp. 241-252

45 Curative Action of the Leukocytolysis Induced by Roentgen Exposures of the Spleen. (L'action curative de la leukocytolyse provoquée par l'irradiation de la rate.) I. I. Manoukhine.

44. **Cryptotoxic Properties of Blood-Serum.**—Achard has coined this term to express what may happen when the colloidal balance of the blood-plasma becomes upset. Under normal conditions and with the normal colloidal physical balance the substances or properties of the blood-plasma balance, and all is well, but let the colloidal balance become upset, then certain of the substances are liable to display active—even toxic—properties, hitherto held in abeyance. In consequence of this upset of the physical balance of the blood-plasma, these substances may thus acquire toxic properties, not from any chemical synthesis or artificial production, but simply by becoming unleashed, breaking loose from the more or less lax colloidal combination in which they have previously been held. To these preformed but hitherto latent cryptotoxic substances he ascribes some share in the production of the anaphylactic shock. Delezenne has recently reported research on cobra venom which seems to demonstrate that the venom does not act directly on the blood-corpuscles but on the serum, releasing from it a hemolytic substance which resists boiling. A similar hemolytic substance has been obtained from egg yolk under the contact action of the venom. Achard has demonstrated in dog serum a similar hemolytic substance by heating the serum to 56 C. This evidently gets rid of the antagonist of this substance and leaves the hemolytic substance free to act. In illustration of the possibilities thus opening up by recognition of this importance of the colloidal balance in the blood-plasma, he cites Bordet's discovery that fresh guinea-pig serum acquired intense toxic properties when mixed with an indifferent colloidal substance such as gelose. After two hours of this contact at 38 C. the mixture was centrifuged to get rid of the gelose and it induced symptoms like those of anaphylactic shock when injected into other animals. Heating to 56 C. did not annul the toxic action, but if the serum had been heated to this point before contact with the gelose no toxic action of any kind was observed.

Berliner klinische Wochenschrift

May 12, L, No. 19, pp. 861-904

46 *Curability and Treatment of Ozena. (Gegenwärtige Behandlung der Coryza atrophique ozénateux.) E. J. Moure.
47 Corpus Luteum and Pregnancy. J. W. Miller.
48 Production and Elimination of Oxalic Acid. (Zur Frage der Oxalsäurebildung und -ausscheidung beim Menschen.) L. Lichtwitz and W. Thörner.
49 Chemistry of the Cell. II. (Kernkörperchen.) P. G. Unna.
50 Functional Tests of the Internal Ear. (Ueber die funktionelle Untersuchung des Ohrlabyrinthes.) Hinsberg.
51 Vascular Lesions in Diabetes. (Zur Aetiologie der Gefässerkrankungen beim Diabetes.) E. Aron.
52 Neosalvarsan More Toxic than Salvarsan. (Darf das Neosalvarsan ambulant angewendet werden?) A. Wolff and P. Mulzer.
53 Mortality from Cancer in Prussia. (Sterblichkeit an Krebs in Preussen während der Jahre 1903-1911 nach Altersklassen.) R. Behla.
54 Determination of Sugar in the Urine. (Ueber den qualitativen und quantitativen Nachweis von Traubenzucker im Harn.) W. Beckers

46. **Treatment of Ozena.**—Moure is convinced that if physician and patient have the necessary courage and patience they will frequently succeed in completely curing ozena; even when a complete cure is not realized, essential improvement is certain. He applies the nose douche with rhythmic jets, as the patient breathes; regularity and extreme care are the main elements for success. Vibration massage of the mucosa is also useful in helping to expel the crusts, spraying the nose with a 5 or 20 per cent. silver nitrate solution. Any irregularity in the passage promotes the accumulation of crusts, and to remedy this as well as to counteract the atrophy of certain portions of the mucosa over the turbinate bones he injects paraffin under the mucosa, when the latter is not so soft and degenerated that it is unable to hold the paraffin. Complicating sinusitis is treated by the usual measures; in some cases a radical operation on the maxillary sinus proves the only means to cure the ozena. General treatment is advisable at the same time. He states that he has now records of hundreds of patients definitely cured of their offensive atrophic disease of the nose after a course of treatment lasting from three to six years.

Correspondenz-Blatt für Schweizer Aerzte, Basel

May 3, XLIII, No. 18, pp. 545-576

55 *Operative Correction of Wandering Kidney. (Zur operativen Behandlung der Wanderniere.) T. Kocher.
56 *Mammary Tumors in Men. F. Miescher.

May 10, No. 19, pp. 577-608

57 *Traumatic Neurosis Dragging through Eighteen Years' Litigation for Indemnity. (Typischer Fall von ungeheilter traumatischer Neurose unter dem System der Rentenabfindung.) Naegeli.

55. **Operative Treatment of Wandering Kidney.**—Kocher regards the technic he describes as an improvement over all other methods he has tried. The hammock in which the kidney is raised is made from a strip of fascia taken from the patient's thigh. The stitches in the tough fascia do not pull out as in other tissues, and the kidney is gently lifted without force. The strip is about 18 by 20 cm. long by 10 cm. wide. An incision 4 cm. long is made in the center in which the lower pole of the kidney fits like a stone in a sling, and the fascia cannot slip up. It is not necessary to put the kidney back into its normal place; it can be lifted up enough in this hammock and the corners of the hammock sutured to the edges of the wound, etc. In doing so the lower pole can be drawn a little forward if the kidney has a tendency to droop. In the cases in which this technic was applied, various other operative measures had failed to relieve permanently. The great advantage of the technic is that the kidney is kept from moving about without depending on any sutures in the kidney

Fascia hammock for wandering kidney.

itself; the lower third or lower two-fifths are solidly held in this firm pocket, which can then be raised as desired. He does not think it necessary to draw the fascia over the kidney as Henschen advocates. This might interfere with the vessels or ureter in case the edges of the fascia grow together. He thinks his method is more reliable than the basket-handle method.

56. **Tumor in the Male Breast.**—Miescher has encountered only two cases of non-malignant tumor in the breast of men, and in one of these there was partial malignant degeneration. The tumor was in a man of 52 and the growth was removed a year after its appearance. There has been no tendency to recurrence or metastasis in the three years since. The other patient was a man of 67 with an ordinary mammary fibroadenoma.

57. **Traumatic Neuroses.**—The evils of the systems current abroad for settling the insurance indemnity after an accident are emphasized in the case reported by Naegeli, in which fourteen certificates had been given by various medical experts in the course of eighteen years. The woman's neurosis had thus been kept constantly fanned into flame. He remarks that a history of an accident in a case seems to have a most mysterious influence on the medical mind, rendering it liable to give credence to the most preposterous things.

Deutsche medizinische Wochenschrift, Berlin

May 8, XXXIX, No. 19, pp. 873-920

58 *Vaccination against Diphtheria. (Ueber ein neues Diphtherieschutzmittel.) E. v. Behring.
59 *Trypanosomes and Spirochetes are Parasites of the Lymph rather than of the Blood. (Ueber den Weg der Infektion bei Trypanosomen- und Spirochätenerkrankungen.) A. Schuberg and W. Böling
60 *Infectiousness of Milk of Syphilitic Women. P. Uhlenhuth and P. Mulzer.
61 *Varicella in Adults. P. Krause.
62 Pernicious Anemia. Queckenstedt.
63 Characteristic Lymphocytosis in Chronic Articular Rheumatism. (Veränderung des Blutbildes beim chronischen Gelenkrheumatismus.) F. Gudzent.
64 Emphysema. J. Plesch.
65 *Postoperative Fatalities from Abnormally Narrow Aorta. (Zur Kenntnis der postoperativen Todesfälle bei abnormer Enge der Aorta.) V. Frühwald.
66 *Depressing Influence of Emotions on Gastric Secretions. M. Bönniger.
67 Correction of Lateral Curvature of the Spine. (Die Korrektur der seitlichen Rückgrats-Verkrümmungen.) E. G. Abbott (Portland, Maine).
68 The Nose as Source of Infection in Chorea, Acute Rheumatism, etc. (Aetiologische Beziehungen zwischen Rheumatosen und nasalen Erkrankungen.) M. Senator.
69 Sensitized Paper for Roentgenotherapy. (Röntgenaufnahmen mit lichtempfindlichem Papier.) v. Lorentz.

58. **Vaccination against Diphtheria.**—Behring's communication was summarized in the Berlin Letter in THE JOURNAL June 14, p. 1896.

59. **Trypanosome and Spirochete Infection Occurs in the Lymph.**—Schuberg thinks that the results of his research indicate that these parasites penetrate by preference into the lymph passages rather than into the blood. They must be regarded therefore as parasites of the lymph system. This applies especially to the trypanosomes.

60. **Infectiousness of the Milk of Syphilitic Women.**—Uhlenhuth and Mulzer know of no instance in which the spirochaeta pallida has been found in the milk of syphilitic women, but they have recently succeeded in inducing syphilitic lesions in rabbits by inoculations with milk from eight syphilitic parturients although microscopically the milk was sterile. in one of the positive cases the woman was free from symptoms of syphilis but her child had signs of the disease. This confirms the view that the symptomless mothers of syphilitic children have the disease in a latent form, harboring active virus in their bodies. It is still a question whether the infant could be infected by swallowing the virus in the milk. Research on gastric juice showed that it rendered the spirochetes non-motile in a few minutes. Uhlenhuth is now engaged on experimental research, feeding young rabbits with suspensions of living spirochetes, and will report on this research later. For the present all that he asserts is that the milk of syphilitic women may become infectious under certain circumstances.

61. **Varicella in Adults.**—Krause remarks that some of the German text-books deny the occurrence of varicella in adults but he has encountered four certain cases. The most characteristic symptom of varicella is that the exanthem develops in waves and the pustules are of various ages, coming out over several days, while in his sixty cases of small-pox the exanthem had always developed completely in the course of one or two days. The positive result of vaccination confirms the diagnosis of varicella. The number of leukocytes is always normal or below, while in small-pox there is leukocytosis and marked absolute lymphocytosis. In one of his varicella cases the patient was in a large institution and differentiation was extremely important. Inoculation of calves with small-pox seldom gives positive results but inoculation of the rabbit cornea with the content from a pustule of a variola patient is almost invariably successful but never with varicella.

65. **Postoperative Fatality with Abnormally Narrow Aorta.**—Frühwald's patient was a young man supposedly healthy but excitable who required removal of an angiofibroma from the nasopharynx. The operation was tedious but the pulse was relatively good. Half an hour after conclusion of the operation the respiration became irregular, the pulse imperceptible and the patient died half an hour later. There had not been much blood lost during the operation; at most, three-fourths to one liter, and 800 c.c. saline had been infused. There was no sign of the status lymphaticus but the aorta was remarkably small and narrow. The vascular system was evidently inferior, and the patient was unable to rally after the loss of a comparatively small amount of blood. This case teaches anew that even the most careful examination is unable to reveal this inferiority of the aorta and thus warn of impending danger in such cases. The operation was done under morphin, scopolamin and the Billroth mixture. The foramen ovale was patent which is a frequent accompaniment of hypoplasia of the aorta system.

66. **Psychic Factors and Stomach Functioning.**—Bönniger reports research on dogs which confirms the powerful influence of the mind and emotion on stomach functioning. When the dogs were much annoyed or distressed, not only the secretory functioning but the motor were arrested more or less completely. All powerful emotions, except those stimulating the appetite, check gastric functioning; pain, fright and great joy take away the appetite, and Bönniger is convinced that in certain cases of atony psychic factors are at work, and treatment should be by psychic means rather than by dieting. His research was undertaken to confirm Hemmeter's and Cloetta's statements in regard to the reduction of the gastric juice in hyperacidity by protracted feeding with milk. Cloetta fed a group of dogs exclusively on milk and another group on meat, and after three months found no hydrochloric acid in the milk dogs. Bönniger's research gave conflicting conclusions—the milk dogs having normal gastric secretion or not, according to certain external conditions. This suggested that the gastric secretion was under the influence of psychic factors, and this assumption was abundantly confirmed by further experiments in this line.

Jahrbuch für Kinderheilkunde, Berlin

May, LXXVII, No. 5, pp. 505-628

70 Metabolism of Fat, Calcium and Nitrogen in Infants. (Beitrag zum Fett-, Kalk- und Stickstoffwechsel beim Säugling.) E. Aschenheim.
71 *Insufficiency of the Liver in Scarlet Fever. (Leberinsuffizienz bei Scharlach.) P. Tachau.
72 Congenital Diaphragmic Hernia. (Hernia diaphragmatica congenita bei einem 3jährigen Kinde.) F. Reiss.
73 *Sick Children and Flies. J. Zentner.
74 Summer Diarrhea in Infants. (Zur Frage der Sommerdiarrhöen der Säuglinge.) S. Wolff.
75 Urine Test for Breast-Milk Feeding. (Die Engel-Turnausche Reaktion bei Brustkindern.) S. Ostrowski.

71. **Liver Function in Scarlet Fever.**—Tachau reports twenty cases of rather mild scarlet fever observed during 1912. That there was some disturbance of the liver function is shown by

the fact that there was urobilinuria, alimentary levulosuria and increased excretion of amino-acids. In the mildest cases where there was only urobilinuria it was probably due purely to passive insufficiency caused by increased blood disintegration. But when there was an abnormal excretion of nitrogen products there must have been some real injury to the liver parenchyma. He considers it an advantage not to have had very severe cases, for such injury as there was in his cases was undoubtedly due to a specific action of the toxin of the disease and not to the septic conditions which often arise in severe scarlet fever.

73. **Protection against Flies.**—Zentner reviews recent literature proving that pathogenic germs are carried by flies, and emphasizes anew the necessity of protecting sick children from them. Besides fly paper and other methods of catching the flies and screens for keeping them out of the building, he uses a frame hung quite high over the child's bed over which coarse netting is thrown so that the child is surely protected without interference with air or increased heat.

Zentralblatt für Chirurgie, Leipsic

May 10, XL, No. 19, pp. 713-760

76 Improved Technic for Resection of Stomach and Intestines. (Zur Technik der Magen- und Dickdarmresektionen.) Gelinsky.

Zentralblatt für Gynäkologie, Leipsic

May 10, XXXVII, No. 19, pp. 681-712

77 Source of Infection in Emphysematous Vaginitis. (Herkunft der Keime bei Colpitis emphysematosa.) O. Aichel.

Gazzetta degli Ospedali e delle Cliniche, Milan

May 8, XXXIV, No. 55, pp. 575-582

78 *Pollakiuria in Acute Infectious Diseases. (La pollachiuria in alcuni stati morbosi e la sua patogenesi.) P. Galli.

May 13, No. 57, pp. 599-606

79 Hemopoietic Serum Therapy. (Ricerche cliniche sull'azione terapeutica del siero di animali anemizzati.) C. Gibelli.

78. **Pollakiuria in Acute Infections.**—Galli noticed in a recent epidemic of scarlet fever that in about 10 per cent. of the cases there were such frequent desires to urinate that the children were unable to get their sleep at night and were disturbed during the day. This was most marked the second or third day of the disease. Pollakiuria was noted also in nearly 15 per cent. during a recent epidemic of whooping-cough, but only during convalescence. In both diseases the urine and bladder were apparently normal. He thinks that the trouble was probably, in the scarlet fever cases, the result of the action of the scarlatina toxin on the kidneys, the irritation of the kidneys causing an exaggeration of the influence on the bladder normally exerted by the kidneys. In the whooping-cough, on the other hand, the disease toxin had affected the spinal centers which control the bladder sphincter. Psychic factors must be eliminated as the patients were all quite young children.

Policlinico, Rome

May 11, XX, No. 19, pp. 661-696

80 *Tetragenus Septicemia. (Caso di setticemia da micrococco tetrageno nell'uomo.) F. Marcora.

May, Medical Section No. 5, pp. 193-240

81 Recovery after Splenectomy in Case of Hemolytic Jaundice with Apparently Pernicious Anemia. (Intorno agli itteri emolitici.) G. Antonelli. Commenced in No. 3.

82 Noma. (Ricerche sul noma.) A. Gasbarrini.

80. **Tetragenus Infection.**—Marcora's patient was a woman of 40 who had had severe typhoid at 31 and gall-stone colics in recent years. The spleen was much enlarged and there was remittent fever with intervals of normal temperature. The temperature at times ran up to 41 C. (105.8 F.) with chills, but there were few of the general phenomena usually accompanying such high temperatures. The tetragenus was cultivated from the heart blood, from abscesses in the liver and from the spleen. The patient succumbed at the end of the second month to a sudden acute endocarditis.

Medizinskoe Obozrienie, Moscow

LXXIX, No. 4, pp. 297-382

83 *The Primary Focus with Tuberculous Meningitis. A. Artamonoff.

84 Kala-Azar at Tiflis; Four Cases. A. Gourko.

85 Favorable Experiences with Bass and Johns' Method of Cultivating Malarial Plasmodia in Vitro. A. Gourko and J. Hamburger.

No. —, p. 383

86 *Sexual Psychogenic Cardiac Neuroses: Two Cases. A. Voltke.

87 *Ankylosis of Vertebrae, Hip and Shoulder Joints. (Spondylose rhizomélique.) Melikianz.

88 *State Sanatoriums for the Tuberculous versus Free Specific Treatment. S. F. Volfring.

83. **Primary Focus with Tuberculous Meningitis.**—Artamonoff has been studying the necropsy records of the last twenty-nine years at a Moscow children's hospital, seeking to determine the primary focus and mode of spreading of tuberculosis to the brain membranes. In 218 cases of tuberculous meningitis, the lungs, pleura and bronchial lymph-nodes were found involved in 210; these organs ought to be looked on as the main points of entrance for the tuberculous infection.

86. **Phrenocardia.**—This is a name given by Herz to a group of symptoms characterized by pain in the cardiac region, respiratory disorders and cardiac palpitation—the so-called triad of Herz, sometimes defined as a sexual cardiac neurosis. The pain is always to the left of the cardiac dulness, occasionally below the apex beat, but never to the right of the sternum. It usually corresponds to the place of the attachment of the diaphragm, the sixth and seventh ribs, and is due to the spasmodic contraction of the diaphragm. The respiratory disturbances consist in attacks of air-hunger, which the patient tries to overcome by attempts at deep breathing. They are the result of lowering of the diaphragm on the left side. The heart, therefore, also sinks, assumes a vertical position, and on *x*-ray pictures appears as a "falling drop," and is movable; the condition is an actual cardioptosis. Among the subjective complaints, the most prominent are cardiac palpitations, often in the form of embryocardia, that is, the heart sounds follow each other like the ticking of a watch. The patient is very restless during the attacks; hypodermic injections of morphin do not benefit, and occasionally during the attack there develop very painful infiltrations of the periosteum of the left ribs. This infiltration of the periosteum has been called by Herz pseudoperiostitis angioneurotica. This, with the patient's conduct during the attack, may help to differentiate phrenocardial attacks from those of angina pectoris. Auscultation and percussion of the heart do not reveal any changes, but the pulse is usually abnormally fast and becomes greatly accelerated from any physical exertion or emotional stress. The causes of phrenocardia are functional nervous disorders, as hysteria, neurasthenia; constitutional diseases, such as anemia, chlorosis, and intoxications (alcoholism, tobacco, etc.), but chief of all the causes rank sexual abnormalities for the purpose of avoiding pregnancy. This is the reason why phrenocardial attacks usually occur in women. Against the abnormal sexual life the treatment must be directed, usually with good results, as Voltke's two cases show. When the etiology cannot be ascertained, psychoanalysis according to Freud must be used. The respiratory disturbances are easily checked by inhalation of ether.

87. **Rhizomelic Spondylosis.**—This subject is exhaustively discussed by Melikianz from the clinical and pathologic points of view. He says that the form described by Bechterew as ankylosis of the vertebral column is practically the same disease that was described by Marie and Strümpell as rhizomelic spondylosis, and by other authorities as rheumatic spondylosis. He refers all these three forms of complete ankylosis of the vertebrae with more or less ankylosis of the hip and shoulder joints to chronic arthritis with ankylosis. This view is justified by the fact that all these three affections usually have one common etiology, such as some infection (rheumatism, gonorrhea, typhoid), and have the same clinical and pathologic signs and symptoms, and that it is impossible

to classify some cases, as his case proves, either as Bechterew's or the Marie-Strümpell form or as a rheumatic spondylitis, because cases frequently occur that show a combination of symptoms peculiar to one or more of these three types.

88. **The Sanatorium System versus Dispensaries in the Campaign against Tuberculosis.**—Fuchs-Volfring gives the results of his studies of different official reports of the German state compulsory insurance office in regard to measures against tuberculosis. In 1910 there were treated in Germany's sanatoriums 41,262 patients, of whom 13,905 were females, at the cost of about $4,100,000, with the average stay of seventy days. Of this number only 6 per cent., or 2,365, left the sanatoriums apparently cured, and only 12 per cent. improved, so that each so-called cured workingman cost 7,364 marks ($1,841) and each improved patient $581. Of 16,000 patients with tubercle bacilli in the sputum, 3,200 left free of the tubercle bacilli, at a total cost of 6,112 marks; each patient thus freed from bacilli cost 1,910 marks. Official data show that there are 800,000 tuberculous persons in Germany, so that it would cost at the above rate one and a half milliard marks to free all these patients from their tubercle bacilli. In other words, Germany spends annually, with the sanatorium system, 17,000,000 marks to combat the spreading of tuberculosis, and renders safe only 0.4 per cent. of those affected, namely, 3,200. All the remaining 796,800 remain with their bacilli, thus spreading the infection and proving that the popular sanatoriums, while highly expensive, yet accomplish very little in the way of complete cure or prevention of the spreading of the infection.

Equally unsatisfactory are the results in respect to the wage-earning capacity. He found that most of the incapacitated among workingmen are those that suffer from tuberculosis, that they constitute one-fifth or one-sixth of all that receive sick benefit from the insurance office, that the number of such invalids is steadily increasing, and in a greater proportion than from other diseases, notwithstanding the fact that the fight against tuberculosis costs twice as much as that of all other diseases put together. The expenses of the insurance companies in 1897 were 50 per cent. of the income; at the present they are 93 per cent. because of the increased amount of invalid pensions and expenses for treatment. Therefore, he comes to the conclusion that the state sanatorium treatment in Germany has proved a failure, being of comparatively little aid in the campaign against tuberculosis, as the expenses are too enormous in comparison with the few patients that get cured, and that the spreading of the disease is not prevented, and that the number of patients who have their wage-earning capacity restored is large only on paper. In his opinion the method of dispensaries, specific treatment and prophylactic measures to stop the spreading of the disease, is more practical and accomplishes more, as it can be applied to a far larger number of patients.

Semana Medica, Buenos Aires

April 17, XX, No. 16, pp. 909-964

89 *Bone and Joint Tuberculosis. (Tratamiento de las tuberculosis osteo-articulares.) I. Ymaz.
90 Advantages of Lithotripsy for Bladder Stones. (Calculos vesicales. Su tratamiento.) R. Landivar.

89. **Bone and Joint Tuberculosis.**—Ymaz protests against calling these lesions "surgical tuberculosis" or "local tuberculous lesions" as experience has amply demonstrated that operative measures are rarely required while necropsy findings scarcely ever fail to reveal some focus elsewhere, in the lungs, pleura or mediastinal lymph-nodes. Treatment should therefore be by general measures as for pulmonary tuberculosis, resting and immobilizing the limb and exposing it to the direct sunlight. Intra-articular injections are not only useless but dangerous in many cases. He once witnessed the transformation of a favorably progressing knee lesion into a purulent arthritis under the influence of five injections into the joint done by an eminent specialist whose technic was above suspicion. He cites further nine cases from the literature in which the local injection of camphorated naphthol proved directly fatal.

Hospitalstidende, Copenhagen

May 7, LVI, No. 19, pp. 505-536

91 Clinical Importance of Examination of the Venous Pulse. (Venepulsundersøgelser.) O. V. C. E. Petersen.

May 14, No. 20, pp. 537-560

92 *Tuberculin of Bovine Origin in the Diagnosis of Surgical Tuberculosis. (Kliniske Undersøgelser af Bovotuberkulin som Diagnostikum ved kirurgisk Tuberkulose.) A. Buch.

92. **Reaction to Tuberculin from Bovine Tubercle Bacilli in Children with Surgical Tuberculosis.**—Buch applied the tests to 116 children at a sanatorium for children with surgical tuberculosis, using both human and bovine tuberculin and applying them both by the Pirquet skin technic and by the intradermal or intracutaneous method. It was found that in 10 per cent. with the intracutaneous and in 18 per cent. with the cutaneous (Pirquet) technic the reaction was stronger with the bovine than with the other tuberculin. In no instance was a positive reaction to the bovine tuberculin obtained without a reaction to the human, but in 6 and 5 per cent. the human was positive and the bovine negative. Both reactions were equally marked in 29 and 22 per cent.; the human more marked than the bovine in 55 per cent. with both technics. In previous research of this kind the subjects have been generally adults with pulmonary tuberculosis.

Ugeskrift for Læger, Copenhagen

May 1, LXXV, No. 18, pp. 705-748

93 *Tubercle Bacilli in the Blood-Stream. P. Bogason.

May 8, No. 19, pp. 749-808

94 Study of the Blood. (Undersøgelser af normale Menneskers Blod.) V. Bie and P. Moller.
95 *To Abort a Boil. (En ny Metode til at kupere en begyndende Furunkel.) K. Herrild.

93. **Tubercle Bacilli in the Blood.**—Bogason found tubercle bacilli in the blood-stream in only two of forty-one patients examined, although he worked with 10 c.c. of blood. It is his practice to make the examination in the morning when the fat content of the blood seems to be at its lowest. In the afternoon there is so much fat in the blood that some of the figured elements behave in respect to stains like acid-fast bacilli and deceptively resemble them. Other bacilli besides the tubercle bacilli in the presence of fat acquire the property of being acid-fast. The acetic acid-formaldehyd technic enhances this acid-resisting tendency. It is possible further that the blood may contain tubercle bacilli derived from milk, without actual pathogenic properties owing to their scanty number and to the destructive action of the phagocytes. He thinks it might be interesting to record the bacilli content of the milk at the hospitals where tubercle bacilli have been found in the blood-stream in such surprisingly large proportions of cases. The guinea-pigs inoculated with the blood might have become contaminated from tubercle bacilli on the patient's skin at the point where the blood was drawn. The patient holds his hand before his mouth when he coughs, and from the hand to the forearm is not a long way. If the same cannula is used for puncture of the vein and for injection into the animal, accidental inoculation is likewise possible. He adds further that the lesions of coccidiasis in animals may deceptively simulate those of tuberculosis. He admits, of course, that tubercle bacilli may occur in human blood but he thinks there are so many possible sources of error in the manipulation of animals for experimental inoculation that positive findings in regard to the presence of tubercle bacilli in the blood-stream should be regarded with considerable skepticism.

95. **Hair-Pin to Abort Furuncle.**—Herrild squeezes out the contents of an incipient furuncle by pressure applied with a smooth "invisible" hair-pin encircling the lesion and forcing the contents out centrifugally. Other measures, incision, puncture, cauterization and the like generally drive the virus in, he remarks, while the pressure from the hair-pin works from below outward. In the fifty cases in which he has applied it the pustule healed at once and no further ones developed.

MINUTES OF THE MINNEAPOLIS SESSION

(Continued from page 1966)

ANNUAL MEETING OF SECRETARIES OF SECTIONS

Believing that closer cooperation among the sections is advisable, and that such cooperation is attainable only by bringing the principal officers of the sections together, the Board passed a resolution authorizing the calling of a meeting annually, on the day preceding the October meeting of the Board of Trustees, of the secretary or the chairman of each of the several sections of the Association, and the paying of the actual expenses of these officers. It is understood that the secretary will be the one to attend these meetings, but that in case he is unable to do so, the section shall be represented.

PUBLIC HEALTH JOURNAL

The opinion of the Council on Health and Public Instruction was requested relative to the publication of a public health journal. The Council advised that it was not prepared to advise the publication of a popular health journal at the present time.

SMALL MEDICAL JOURNAL

In its report last year, the committee appointed by you in 1911 to investigate the advisability of publishing a small medical journal advised against this, believing that the existing medical journals made this unnecessary. It recommended, however, that the Board of Trustees consider the advisability of appointing a committee to assist the state journals that "are conducted in accordance with reasonable rules, as to plain honesty in their advertising and reading pages, in securing honest advertisements on a reasonable percentage basis, etc." In line with this recommendation a plan is being worked out to establish a cooperative medical advertising bureau in the Association headquarters, with the object of furthering the interests of the various state journals that comply with the standard regarding advertising. This will mean the appropriation of some money, as the Board expects to be able to adopt a plan at the present meeting.

CONFERENCE OF SECRETARIES OF STATE SOCIETIES

In accordance with the resolutions referred to the Trustees by you last year, the Board endorsed the recommendation and called a conference of state secretaries. This conference was held in Chicago, October 23-24, and its labors were reported in THE JOURNAL, November 2, and in complete detail in the *American Medical Association Bulletin*, November 15.

Relative to the action of the House of Delegates recommending that the Board of Trustees be directed to amend the charter so as to provide that the President, the Secretary and the Editor of THE JOURNAL shall be ex-officio members of the Board of Trustees without the right to vote, and that the Secretary of the Association shall be ex-officio Secretary of the Board of Trustees: we consulted the attorneys of the Association, Loesch, Scofield and Loesch, and they said,

"It is our opinion that such amendment would be invalid under the corporation law of Illinois."

DISTRIBUTION OF "PRINCIPLES OF MEDICAL ETHICS"

According to your instructions, a copy of the "Principles of Medical Ethics," in booklet form, was mailed to each member of the Association during the year.

ARCHIVES OF INTERNAL MEDICINE

The circulation of the *Archives of Internal Medicine* is increasing as much, probably, as could be expected, since it appeals only to the more progressive of internists. The average circulation for the last three years has been as follows:

1910	2,133
1911	2,170
1912	2,027

Thus it will be noticed that there was a slight decrease last year. As a matter of fact, however, the outlook is encouraging, because an increasing number are added to the list who are becoming permanent subscribers, whereas at first a very large number discontinued after taking the journal for a year. There was a loss of about $500 last year on the *Archives*.

AMERICAN JOURNAL OF DISEASES OF CHILDREN

As the *American Journal of Diseases of Children* appeals only to those especially interested in pediatrics, a large circulation cannot be expected, at least for the present. The circulation now is approximately 1,900 copies. There was a loss on this journal last year of $298.

COUNCIL ON PHARMACY AND CHEMISTRY

The value of the work of the Council on Pharmacy and Chemistry and of the Chemical Laboratory is now so well known to you that it is not necessary to go into a detailed statement of what these two institutions are doing. We would emphasize, however, what was stated last year; namely, that the Council is now doing more practical and constructive work than ever. Especially of this character is the clinical and research work being done under the direction of the Committee on Therapeutic Research. The Board has thus far appropriated $3,500 for this work, believing that it should be encouraged.

As an illustration of the Council's broader aims toward the improvement of conditions, it should be mentioned that it has now issued, in preliminary form, a publication known as "Useful Remedies." This contains a limited list of drugs, and when issued in complete form, the book will include a description of the action, use and dosage of the drugs mentioned. The main object of the book is to furnish a list of important drugs that shall be used as a basis of teaching in medical schools, and also as a basis on which state boards of examiners shall examine applicants for license to practice. Although issued only in a tentative form, this book has already been adopted by several schools and also by various examining boards.

As a direct result of the work of our Council on Pharmacy and Chemistry, a similar body has been created in Germany. One of the principal men in this body, and the one really responsible for it, is Professor Heubner, of the University of Göttingen, and editor of the *Therapeutische Monatshefte*. The Council asked the Board of Trustees to elect Professor Heubner corresponding member of the Council on Pharmacy and Chemistry. This the Board gladly did, especially because of the great work he has done in bringing about better conditions in Germany.

The work of the Council on Pharmacy and Chemistry is not so cordially supported as it should be by the very class which should naturally be regarded as its chief supporter; namely, the leaders in our profession, surgeons as well as clinicians. The rank and file of the profession *do* appreciate the work and *are* cooperating.

Considerable routine work is necessary on the part of the Chemical Laboratory in the analysis of nostrums exposed in THE JOURNAL. At the same time, it is doing what may be regarded as constructive work. For instance: a large number of physicians dispense their own drugs, and it is charged that many of such physicians obtain their drugs from so-called "physicians'" supply houses. It is also charged that the official drugs furnished by these supply houses are not standard. Our chemists have about completed an investigation covering many of the products put out by these firms, and the report of this work will soon be published.

EXHIBIT AT THE INTERNATIONAL CONGRESS ON HYGIENE AND DEMOGRAPHY

The Association had a very creditable exhibit at the International Congress on Hygiene and Demography in Washington last December. This exhibit appealed directly to the layman, and dealt especially with "patent medicines." It consisted of illustrations, specimens and large cards, and included many of the fakes and frauds which have been shown up through THE JOURNAL. The exhibit attracted wide attention and was awarded a certificate of superior merit.

NOSTRUMS AND QUACKERY

The work of enlightening the public in regard to fraudulent "patent medicines" and quackery has not only been broadened in its scope, but is producing encouraging results. The number

of inquiries from laymen has increased enormously. Civic organizations and others interested in the public health have taken advantage of the exposés made by THE JOURNAL, by bringing to the attention of laymen the viciousness and cruelty connected with the disreputable business of quackery and nostrum exploitation. Lay societies carrying on antituberculosis campaigns have used the information published in THE JOURNAL on "consumption-cure" frauds and have distributed, through their visiting nurses and other channels, numbers of our pamphlets on these fraudulent "cures." Further, large commercial organizations are placing our pamphlets and books in their employees' libraries. Newspaper and magazine publishers are continually writing for information about this or that "patent medicine" and requesting an expression of opinion regarding the acceptability of advertising of products of this sort. An organization of national advertisers, through its various vigilance committees, is calling on THE JOURNAL for data regarding many fraudulent medical concerns and products.

In addition to the pamphlets published by the Association exposing medical frauds, a number of exhibit cards have been prepared dealing with the same subject. While these cards were originally designed for the American Medical Association's exhibit at the Fifteenth International Congress on Hygiene and Demography, there has been a demand for them on the part of various organizations. Some of these cards have been furnished for "health trains," as for instance those in North Dakota, Louisiana and Michigan. The demand for a wider dissemination of the information which this department has accumulated made it seem worth while to prepare a set of stereopticon slides that could be used in giving illustrated lectures on the subjects of nostrums and quackery. While these slides have not been advertised in any way, there has already been a demand for them, which indicates the need of such material. Some of the uses to which they have been put are referred to in the report of the Council on Health and Public Instruction.

The evil of the "patent-medicine" business and quackery has become so serious and wide-spread that there is apparently a world-wide effort to curtail it. The American Medical Association has been called on by representatives of the British government to furnish such data as it has on the nostrum evil, for use in connection with the investigation of the same subject by a British parliamentary committee. This was followed by a further request from the British Consulate for another set of the same matter for transmission by the British Embassy to the government of the Union of South Africa. Still more recently, there has been a request from the officials of the state of Western Australia for similar data.

The second edition of the book "Nostrums and Quackery" has been issued. The first edition of 10,000 copies was exhausted in less than a year. The new edition is a larger book, having over 700 pages with more than 300 illustrations. The number of newspapers and lay magazines that are either quoting direct or otherwise using the exposés that appear in THE JOURNAL is steadily increasing. One well-known lay journal, published in the interest of consumptives, is reprinting in full the various articles on "consumption-cure" frauds that originally appeared in THE JOURNAL.

LIABILITY ACCIDENT INSURANCE

Last year Illinois adopted a workmen's compensation act, making the employer more responsible for injuries to workmen than was the case before. About the time that this law went into effect, one of our employees met an accident which resulted in his death. He was a married man, and while there was some doubt as to the responsibility, it was believed that his widow should be aided. On our attorneys advice she was paid $1,000, and released the Association from further liability. The insurance company, however, refused to recognize any liability in the matter and would not protect the Association in any way.

After some discussion the Trustees adopted a resolution to the effect that the Association discontinue the liability accident insurance, and in lieu thereof create a permanent insurance fund; that $1,000 a year be placed to the credit of this fund until such time as the fund shall reach $10,000 in amount; that this fund be placed in bank on a certificate of deposit drawing 3 per cent. interest; and that the fund be used in paying accident claims and the expenses necessarily incurred in taking care of such claims. There are $2,000 now in the fund.

DAVIS MEMORIAL

In accordance with your authorization, we secured a bronze bust of Dr. N. S. Davis, and placed it in what was originally called the library, but which, by definite action on the part of the Board, is now designated as the Davis Memorial Room. The balance of the fund, $3,299.43, is made a permanent fund to be used in any appropriate way, other than the purchase of books, in furnishing and maintaining the Davis Memorial Room in the new building.

The Board suggests that the Davis Memorial Room will make an excellent repository for articles of historical interest to the medical profession and to medicine in this country, such as medallions, portraits of prominent men, Festschrifts, memorial volumes, etc. As an illustration, the Trustees report and acknowledge in behalf of the Association the contribution of a replica of a large portrait medallion of Dr. W. S. Thayer, presented to Johns Hopkins University by his friends as a testimonial of appreciation on his declination of a call to Harvard University. The Trustees will be pleased to receive other similar contributions, which will be placed on exhibition in the Davis Memorial Room and preserved for the future.

In the addenda to our report is a table which shows the number of members and subscribers for each year commencing with 1900. A study of that report will reveal the fact that during the past year membership increased, according to the count of the mailing list, 2,832; whereas, for the three years preceding, it will be noticed that there was practically no increase in membership—in fact, a decrease for the year 1911. It will also be noticed, however, that there was an apparent decrease last year of 1,757 in the number of subscribers. The explanation is as follows:

As will be remembered, there was some difficulty for about three years in regard to second-class mail rates and our right to send THE JOURNAL to members as such. During all this time little effort was made to get subscribers to transfer to the membership list. Last year, however, the matter was satisfactorily settled; we adopted the old plan, and persistent efforts were made to transfer eligible subscribers to the membership list. The actual increase in our mailing list for the year was 1,118.

In further explanation: The preceding figures are given as a comparative basis only, by count of our mailing list, exclusive of ex-officio members, members who are at present receiving another of the Association's publications in place of THE JOURNAL, and those whose copies of THE JOURNAL are being temporarily held. The actual membership in the American Medical Association on Jan. 1, 1913, was 37,493.

The treasurer's and auditor's reports are appended and give detailed and interesting information regarding the property and financial status of the Association. As the House of Delegates is the business body of the Association, we are sure that each member will give these reports careful study and consideration.

Respectfully submitted,

W. W. GRANT, Chairman.
FRANK J. LUTZ,
C. E. CANTRELL,
W. T. COUNCILMAN,
PHILIP MARVEL,
PHILIP MILLS JONES,
W. T. SARLES,
M. L. HARRIS, Secretary.

Addenda to Trustees' Report

SUBSCRIPTION DEPARTMENT

The regular weekly issue of THE JOURNAL of the American Medical Association, from Jan. 1, 1912, to Dec. 31, 1912, inclusive, 52 issues, was as follows:

January 6	58,640	July 6	57,831
January 13	58,343	July 13	57,601
January 20	57,536	July 20	57,633
January 27	57,243	July 27	56,443
	231,762		229,508
February 3	56,746	August 3	56,521
February 10	55,906	August 10	55,515
February 17	55,442	August 17	56,492
February 24	55,671	August 24	58,054
	223,765	August 31	56,540
			283,122
March 2	55,488		
March 9	55,613	September 7	56,459
March 16	55,629	September 14	57,494
March 23	55,543	September 21	57,190
March 30	55,490	September 28	58,260
	277,763		229,403
April 6	58,002	October 5	56,247
April 13	55,539	October 12	56,381
April 20	55,549	October 19	56,406
April 27	55,671	October 26	56,859
	224,761		225,893
May 4	65,051	November 2	57,022
May 11	55,615	November 9	57,213
May 18	56,107	November 16	57,293
May 25	56,217	November 23	57,372
	232,990	November 30	57,589
			286,489
June 1	56,543		
June 8	56,824	December 7	60,388
June 15	60,544	December 14	60,206
June 22	57,742	December 21	58,749
June 29	57,861	December 28	60,286
	289,514		239,632

Total issues for twelve months 2,974,602

Weekly average 57,204

PERCENTAGE OF PHYSICIANS RECEIVING THE JOURNAL

The following table gives the number of physicians (based on the third edition of the American Medical Directory) in the United States, number receiving THE JOURNAL and the approximate percentage in each state. Copies to physicians in the United States Army, United States Navy, United States Public Health Service, etc., omitted.

State.	Number Receiving JOURNAL.	Physicians in State 3d A. M. Dir.	Approx. per cent. 3d A. M. Dir.
Alabama	614	2,409	26
Arizona	161	247	65
Arkansas	590	2,580	23
California	2,561	4,764	54
Colorado	798	1,738	46
Connecticut	697	1,562	44
Delaware	84	246	34
District of Columbia	518	1,350	38
Florida	371	973	38
Georgia	806	3,007	26
Idaho	195	420	46
Illinois	5,263	9,885	56
Indiana	1,654	4,979	33
Iowa	1,785	3,658	49
Kansas	997	2,635	38
Kentucky	954	3,599	26
Louisiana	735	1,924	38
Maine	400	1,176	35
Maryland	1,018	2,083	49
Massachusetts	2,674	5,631	47
Michigan	1,660	4,095	41
Minnesota	1,436	2,253	64
Mississippi	503	2,003	25
Missouri	2,131	6,025	36
Montana	268	512	52
Nebraska	839	1,777	47
Nevada	86	144	60
New Hampshire	285	704	41
New Jersey	1,162	2,870	41
New Mexico	189	430	44
New York	5,737	14,805	38
North Carolina	552	1,836	30
North Dakota	355	593	60
Ohio	2,769	7,552	37
Oklahoma	698	2,633	27
Oregon	532	1,041	51
Pennsylvania	4,462	11,299	39
Rhode Island	435	751	58
South Carolina	472	1,275	37
South Dakota	332	651	51
Tennessee	813	3,309	24
Texas	1,510	5,829	26
Utah	247	427	58
Vermont	240	679	35
Virginia	763	2,350	32
Washington	852	1,620	53
West Virginia	588	1,634	37
Wisconsin	1,491	2,637	57
Wyoming	107	235	46

This table shows the number of members and subscribers for each year commencing with 1900:

Year.	Members.	Subscribers.
Jan. 1, 1900	8,445	4,633
Jan. 1, 1901	9,841	8,339
Jan. 1, 1902	11,107	10,795
Jan. 1, 1903	12,553	12,378
Jan. 1, 1904	13,899	14,674
Jan. 1, 1905	17,570	15,698
Jan. 1, 1906	20,826	17,669
Jan. 1, 1907	26,255	20,166
Jan. 1, 1908	29,382	20,880
Jan. 1, 1909	31,999	18,983
Jan. 1, 1910	33,032	19,832
Jan. 1, 1911	33,540	20,504
Jan. 1, 1912	33,250	21,620
Jan. 1, 1913	36,082	19,863

Treasurer's Report

REPORT OF THE TREASURER OF THE AMERICAN MEDICAL ASSOCIATION FOR THE YEAR ENDING DEC. 31, 1912

ASSOCIATION ACCOUNT

RECEIPTS

Dec. 30, 1911—Balance—		
Bonds per schedule	$ 40,000.00	
Certificates of deposit	60,000.00	
Checking account	1,536.57	
		$101,536.57
1912—		
February 8—Surplus transferred from current account		30,000.00
March 8—Interest on deposit certificate		902.50
April 1—Bond interest		400.00
July 1—Bond interest		400.00
August 28—Interest on deposit certificate		935.00
October 1—Bond interest		400.00
December 31—Interest on bank balances		51.37
December 31—Bond interest		400.00
		$135,025.44
1913—		
January 2—Balance—		
Bonds per schedule	$ 40,000.00	
Certificates of deposit	90,000.00	
Checking account	5,025.44	
		$135,025.44

DAVIS MEMORIAL FUND

1912—		
November 1—Cash in Northern Trust Co. Saving Bank received from former Treasurer, Dr. Frank Billings	$ 3,475.68	
December 31—Interest	48.75	3,524.43
November 8—To Cash—Art Bronze Foundry		225.00
December 31—Balance		$ 3,299.43

W. A. PUSEY, Treasurer.

Auditor's Report

MARWICK, MITCHELL, PEAT & CO., CHARTERED ACCOUNTANTS
115 SOUTH LA SALLE STREET
CHICAGO, Jan. 29, 1913.

To the Board of Trustees of the
American Medical Association, Chicago, Ill.

Dear Sirs:

In accordance with your instructions, we have audited the accounts of the American Medical Association for the year ended Dec. 31, 1912, on which we now submit our report, together with the following statements:

Exhibits
- "A" Balance Sheet as at Dec. 31, 1912.
- "B" Income and Profit and Loss Account for the year ended Dec. 31, 1912.

Schedules
- "1" Bonds as at Dec. 31, 1912.
  For the year ended Dec. 31, 1912:
- "2" Journal Publication Expenses.
- "3" General Expenses.
- "4" Provision for Depreciation.
- "5" Association Expenditure.

We examined the securities representing the investments of the Association and counted the cash on hand. The cash in banks was verified by certificates from the bankers.

The disbursements were vouched and found in order, and a satisfactory test of the revenue of the Association was made.

The balance sheet now submitted is, in our opinion, a full and fair statement of the financial position of the Association as at Dec. 31, 1912, and as shown by the books, subject to the qualification that no provision has been set aside for accrued taxes, and subscriptions and memberships paid in advance, which are partially offset by unpaid subscriptions and memberships earned but not included in the accounts.

The following is a comparative condensed balance sheet as at Dec. 31, 1912, and 1911:

Assets	December 31 1912	December 31 1911	Increase	Decrease
Property and Plant	$345,613.70	$352,345.40	.....	$ 6,731.70
Investments	129,063.75	99,063.75	30,000.00	.....
Current and Working	67,722.94	43,912.91	23,810.03	.....
Prepaid Accounts	907.84	16,437.03	.....	15,529.19
Total Assets	$543,308.23	$511,759.09	$53,810.03	$22,260.89
Liabilities	1,815.82	9,414.39	.....	7,598.57
Surplus	$541,492.41	$502,344.70	.....	.....
Increase				$53,810.03
Decrease				22,260.89
				$31,549.14
Liability Decrease				7,598.57
Increase in Surplus				$39,147.71

The increase in surplus, $39,147.71, represents the net income for the year under review, particulars of which are recorded in Exhibit "B."

During the calendar year 1912 depreciation aggregating $16,024.55 has been written off the property accounts, as shown in Schedule "4." Of this $15,072.15 is applicable to the new building and machinery, plant, etc., while the balance, $952.40, is upon the old building, not now used in connection with the operations of the Association, but from which a rental revenue of $3,304.00 was realized. This is included in "Other Income," as shown in Exhibit "B."

EXHIBIT "A"

BALANCE SHEET AS AT DEC. 31, 1912.

ASSETS

PROPERTY AND PLANT:		
Real Estate and Buildings		$262,098.44
Machinery		56,582.52
Type and Metal		10,732.69
Furniture and Fixtures		13,839.25
Laboratory		1,160.80
Library		1,200.00
Total Property and Plant		$345,613.70
INVESTMENTS:		
Bonds at Cost (Schedule "1")	$39,063.75	
Certificates of Deposit	90,000.00	
Total Investments		$129,063.75
CURRENT AND WORKING ASSETS:		
Material and Supplies as per Inventory	$19,192.45	
Accounts Receivable:		
Advertising	$17,370.74	
Reprints	871.05	
Directory—Third Edition	5,448.38	
Jobbing and Miscellaneous	3,838.70	
	27,528.87	
Notes Receivable	68.40	
CASH IN BANK AND ON HAND:		
First National Bank of Chicago	$ 5,025.44	
Continental and Commercial National Bank of Chicago	13,802.98	
Cash on Hand	2,054.80	
Office Fund	50.00	
	20,933.22	
Total Current and Working Assets		67,722.94
PREPAID ACCOUNTS:		
Insurance	$ 844.04	
Minneapolis 1913 Session	63.80	
Total Prepaid Accounts		907.84
Total Assets		$543,308.23

LIABILITIES

Miscellaneous Accounts Payable		$ 203.01
Advance Payments on Publications		1,612.81
SURPLUS:		
As at Dec. 31, 1911	$502,344.70	
Net Income for Year ended Dec. 31, 1912	39,147.71	
Total Surplus		$541,492.41
Total Liabilities		$543,308.23

EXHIBIT "B"

INCOME AND PROFIT AND LOSS ACCOUNT FOR THE YEAR ENDED DEC. 31, 1912

REVENUE:		
Membership Dues		$ 37,530.12
Journal Subscriptions		223,813.77
Journal Advertising		184,441.87
PROFITS DERIVED FROM:		
Jobbing		4,794.89
Books		4,663.48
Reprints		2,308.04
Buttons		471.62
Miscellaneous Sales, etc.		3,420.93
Gross Revenue		$461,444.72
EXPENSES:		
Journal Publication Expenses (Schedule "2")	$200,079.22	
General Expenses (Schedule "3")	136,934.17	
Provision for Depreciation (Schedule "4")	16,024.55	
		353,037.94
Net Revenue		$108,406.78
OTHER INCOME:		
Interest:		
On Bonds	$ 1,600.00	
On Treasurer's Account	1,888.87	
On Bank Balances	629.18	
Rentals—Building "A"	3,304.00	
	$ 7,422.05	
Loss on Bad and Doubtful Accounts and Notes, less Recoveries	1,024.90	
		6,397.15
Gross Income		$114,803.93
DEDUCTIONS FROM INCOME:		
Association Expenditures—Schedule "5"	$ 59,188.65	
Biographical Index	8,093.54	
Third Edition of Directory—Loss on Publication	8,374.03	
		75,656.22
Net Income		$ 39,147.71

SCHEDULE "1"

BONDS AS AT DEC. 31, 1912

No.	Description and Particulars	Par Value	Book Value
5	Atchison, Topeka & Santa Fe Railway Co. 4 per cent. 100-year gold bonds	$ 5,000.00	$ 4,988.75
5	Atchison, Topeka & Santa Fe Railway Co. 4 per cent. 100-year gold bonds	5,000.00	4,532.50
5	Baltimore & Ohio Railway Co. 4 per cent. first mortgage bonds	5,000.00	5,032.50
5	Baltimore & Ohio Railway Co. 4 per cent. first mortgage bonds	5,000.00	4,767.50
5	Erie Railroad Co. 4 per cent. 100-year gold bonds	5,000.00	4,932.50
5	Reading Co. 4 per cent. general mortgage bonds	5,000.00	4,870.00
5	Reading Co. 4 per cent. general mortgage bonds	5,000.00	4,732.50
5	Union Pacific Railroad Co. 4 per cent. first mortgage bonds	5,000.00	5,207.50
	Total	$40,000.00	$39,063.75

SCHEDULE "2"

JOURNAL PUBLICATION EXPENSES FOR THE YEAR ENDED DEC. 31, 1912

Wages		$ 82,718.05
Editorials, News and Reporting		9,782.93
Materials and Supplies:		
Paper	$ 94,603.79	
Ink	3,569.98	
Electrotypes	4,968.40	
Binding	176.76	
Miscellaneous Supplies	4,259.31	
		107,578.24
Total		$200,079.22

SCHEDULE "3"

GENERAL EXPENSES FOR THE YEAR ENDED DEC. 31, 1912

Salaries		$ 53,458.52
Postage:		
Journal—Second Class	$ 22,409.65	
General	15,911.84	
		38,321.49
COMMISSIONS:		
Journal	$ 6,958.08	
Buttons	202.91	
		7,160.99
PLANT:		
Repairs and Renewals	$ 3,302.17	
Power	3,098.52	
Light	906.71	
Fuel	1,601.20	
Building Maintenance	2,054.57	
Supplies	3,739.84	
		14,709.01

Insurance and Taxes	5,150.76
Discount	3,245.68
Collection Commission	3,093.62
Express and Cartage	1,755.64
Agents' Salaries	1,167.00
Exchange	1,489.35
Legal	1,709.08
Office Supplies	743.63
Telephone and Telegraph	741.21
Reprints	206.78
Office Jobbing	3,161.76
Miscellaneous	819.65
Total	$136,934.17

SCHEDULE "4"

PROVISION FOR DEPRECIATION FOR THE YEAR ENDED DEC. 31, 1912

Classification	*Rate*	*Amount*
Building "A"—Old	5 per cent.	$ 952.40
Building "B"—New	2.5 per cent.	4,774.23
Machinery	10 per cent.	6,286.95
Furniture and Fixtures	10 per cent.	1,123.81
Type	15 per cent.	813.31
Metal	20 per cent.	1,530.99
Factory Fixtures	10 per cent.	413.89
Laboratory Equipment	10 per cent.	128.97
Total		$ 16,024.55

SCHEDULE "5"

ASSOCIATION EXPENDITURE FOR THE YEAR ENDED DEC. 31, 1912

Association	$ 18,302.75
Health and Public Instruction	18,360.02
Pharmacy and Chemistry	10,592.93
Propaganda	3,200.90
Medical Education	7,786.17
Session, 1912	945.88
Total	$ 59,188.65

We are pleased to report that the records of the Association are maintained in a careful and efficient manner, and we also desire to acknowledge the courtesies extended to us during the course of our examination. Yours truly,

MARWICK, MITCHELL, PEAT & Co.,
Chartered Accountants.

Memory of Dr. C. A. Daugherty Honored

At the conclusion of the report of the Board of Trustees, Dr. Arthur T. McCormack, Kentucky, moved that when the House of Delegates does adjourn, it adjourn in honor of the memory of Dr. C. A. Daugherty, and that the Secretary be directed to convey condolences to Mrs. Daugherty.

Motion seconded and unanimously carried.

Dr. Alexander Lambert, New York, Chairman, read the Report of the Judicial Council, as follows:

Report of the Judicial Council

To the Members of the House of Delegates of the American Medical Association:

At the meeting of the House of Delegates held at Atlantic City, June, 1912, four subjects were referred to the Judicial Council by the House of Delegates:

1. The report of the committee to formulate amendments to the Constitution and By-Laws to extend membership, including the pending amendments to the constitution introduced in the 1911 session.

2. The invitation of the Australian Medical Society to members of the American Medical Association to attend its meeting in Auckland, New Zealand, in 1914.

3. The amendment to the By-Laws, Chapter 4, Section 5, providing for a Speaker for the House of Delegates.

4. The request of the House of Delegates that the Judicial Council investigate the secret division of fees and the giving of commission and the matter of contract practice, and recommend such action by the House of Delegates and the constituent associations as will remedy existing evils.

Considering these subjects in the order named, the Judicial Council desires to report:

FIRST.—That it has carefully considered the matter of membership in the American Medical Association and the relation of this membership to membership in the constituent state and territorial bodies. Membership in any county society of any constituent body should legally, and does, constitute membership in the state body to which the county belongs and to the national body. Any physician, therefore, joining a county medical society of a constituent state or territorial body thus logically becomes a member of the American Medical Association. This has been specified in the proposed amendments by retaining the designation of member for all such members of the constituent bodies of the American Medical Association. The representation of each constituent body to the House of Delegates of the American Medical Association is calculated on this membership and on such membership is the organization of the American Medical Association founded. In this membership are some who are content to remain on this footing, but there are others who desire to go further and in this desire are willing to tax themselves by a definite annual fee by which they may maintain the scientific work and the scientific sessions of the American Medical Association, its JOURNAL, and its manifold activities for the benefit of themselves, the other members of the American Medical Association and the profession at large throughout the United States. These members supporting the scientific work of the American Medical Association it seems wise to designate by some special appellation, and this is best fulfilled by the term "Fellows of the American Medical Association." With this explanation of the meaning of the differences between membership and fellowship, the Judicial Council recommends to the House of Delegates for their adoption the following substitute for the amendment to Article 3 of the Constitution, formally submitted to the House in 1911, and the following modification of the By-Laws:

NOTE.—The present wording of the parts of the Constitution and By-Laws is quoted below. The changes proposed are indicated by enclosing in brackets [ ] the words to be omitted and printing in italics those to be added. It will be noted in addition that there is a rearrangement of certain sections of the By-Laws.

ARTICLE 3.—MEMBERSHIP

The membership of this Association shall consist of [such members of the Constituent Associations and of such medical officers of the Army, of the Navy and of the U. S. Public Health and Marine Hospital Service, as shall make application in accordance with the By-Laws hereinafter provided] *the members in good standing in its constituent state and territorial associations.*

There shall be conducted by the American Medical Association a scientific session in which all members of the Association who qualify as hereinafter provided in the By-Laws as Fellows of the American Medical Association shall be privileged to participate.

BY-LAWS

CHAPTER 1.—MEMBERSHIP AND FELLOWSHIP

SECTION 1.—MEMBERS.—*The members in good standing of the constituent state and territorial medical associations of the American Medical Association shall be members.* (Note.—See Sec. 4.)

SEC. 2. TENURE OF MEMBERSHIP.—Membership in this Association shall continue only so long as the individual is a member in good standing of [the] *a* constituent association [of the state in which he resides.] When the Secretary shall be officially informed by the Secretary of the constituent association [of the state in which a member resides] *through which he holds membership in this Association* that the member is not in good standing, the Secretary shall remove the name of said member from the membership roll of the American Medical Association [and shall notify the member of the action taken, together with the reason therefor.] (Note.—See Sec. 5.)

SEC. 3.—EFFECT ON MEMBERSHIP OF REMOVAL TO ANOTHER STATE.—A member who changes the location at which he practices medicine from the state through whose constituent association he holds membership in the American Medical Association to another state in which there is a constituent association, is eligible to membership in the component society

of his new location upon the presentation of a transfer card and an official statement that his dues have been paid in full in the society in which he holds membership. He shall forfeit his membership in the American Medical Association one year after such change of location, unless he becomes a member of the constituent association of the state to which he has moved. Provided, however, that if the component society into whose territory such member has moved shall refuse him membership, the member shall be privileged to appeal to the Judicial Council of this Association to determine whether or not he be guilty of any act that warrants the enforcement of the provisions of this section. Pending the decision of such appeal he shall retain his membership in the American Medical Association through his original state association. And provided further, that the term "the practice of medicine" throughout these By-Laws shall be held to mean the offering of service or counsel for the relief of those suffering from abnormal physical or mental conditions.

SEC. 4.—[MEMBERS.]—*Fellows, Associate Fellows, Honorary Fellows.*—Any [physician reported as a member in good standing of a constituent association by the secretary of that association] *member of this Association,* who on the prescribed form shall apply for [membership] *fellowship* and subscribe for THE JOURNAL, paying the annual dues for the current year, shall be a [member] *fellow.*

Commissioned medical officers of the United States Army, United States Navy and the United States Public Health Service shall be [members] *fellows* of this Association so long as they are engaged actively in their respective service and thereafter if they have been retired on account of age or physical disability. These members shall not be required to [pay dues and shall not receive] *become personal subscribers to* THE JOURNAL of the American Medical Association [except by personal subscription.]

There shall be associate and honorary fellows who shall be elected and shall qualify in accordance with the provisions hereinafter set forth in these By-Laws.

Members, associate members and honorary members of this Association at the time of the adoption of this By-Law, shall be respectively fellows, associate fellows and honorary fellows; and in interpreting these By-Laws, "membership" in the Association at the time of the adoption of this By-Law shall be construed as fellowship.

SEC. 5.—*Tenure of Fellowship.—Fellowship in this Association shall continue only so long as the individual is a member. When the Secretary shall be officially informed that the fellow is not a member, the Secretary shall remove the name of such fellow from the fellowship roll of the American Medical Association and shall notify the fellow of the action taken, together with the reason therefor.*—(Note.—See Sec. 2.)

SEC. 6.—DELINQUENCY.—Any [member] *fellow* who, for one year, has failed to pay his [annual dues], *subscription to* THE JOURNAL, shall forfeit his [membership] *fellowship* thirty days after notice from the Secretary has been mailed to his last known address.

SEC. 7.—[MEMBERSHIP] *Fellowship* RESTORED.—Any former [member] *fellow* who complies with Section [2] 4, Chapter I, shall be reinstated upon payment of his [current] indebtedness, *including his subscription for the current calendar year.*

SEC. 7.—ASSOCIATE [MEMBERS] *Fellows.*—The following may be elected in accordance with Section 4, Chapter VI, to associate [membership] *fellowship:* physicians who are members of the chartered national medical societies of foreign countries adjacent to the United States; dentists holding the degree of D.D.S. who are members of state or local dental societies, and pharmacists who are active members of the American Pharmaceutical Association; and representative teachers, students of sciences allied to medicine, resident in the United States and not eligible to regular membership. Associate [members] *fellows* shall enjoy the same privileges as regular [members] *fellows,* and shall be subject to the same conditions.

SEC. 8.—HONORARY [MEMBERS] *Fellows.*—Physicians of foreign countries may be elected honorary [members] *fellows* by the House of Delegates in accordance with Section 4, Chapter VI.

SEC. 9.—INVITED GUESTS.—Scientists, who are not [eligible to membership in the component society of the locality in which they reside] *engaged in the practice of medicine* may be invited, *with the consent of the secretary of the component county society of the locality in which they reside,* by the general officers or by the officers of a section, to attend any annual session and to take part in the scientific work. They shall be designated as invited guests and be entitled to participate in the scientific and social functions.

CHAPTER II.—REGISTRATION

None but fellows, associate fellows, honorary fellows and invited guests shall be allowed to register or take part at the scientific meetings of the Association.

No [member] *fellow* shall be eligible to register at an annual session until he has paid all of his current indebtedness.

No [member] *fellow* shall take part in the proceedings of the Association or of any of the sections until he has registered his name and address in the registration office.

A [member] *fellow* on registering shall designate the section in which he wishes to be enrolled, but no [member] *fellow* shall register in more than one section at any annual session.

BUSINESS AND LEGISLATION

CHAPTER III.—QUALIFICATIONS, TERM, APPORTIONMENT AND REGISTRATION OF DELEGATES

SECTION 1.—Delegates must have been [members] *Fellows* of the American Medical Association Two Years.—No one shall serve as a member of the House of Delegates who has not been a [member] *fellow* of the American Medical Association for at least the two years immediately preceding the meeting of the House of Delegates at which he is to serve.

Change the words "member" and "membership" to "fellow" and "fellowship" throughout the By-Laws wherever such change is required to carry out the plan proposed of acknowledging the membership in the American Medical Association of all members of component societies and the establishment of the proposed fellowship in the American Medical Association.

SECOND.—The Judicial Council has expressed to Dr. J. W. Barrett of Melbourne, Australia, its appreciation of the invitation he extended on behalf of the trustees of the Congress and the University of Melbourne to the members of the American Medical Association to attend the Australian Medical Congress to be held in Auckland, New Zealand, in 1914. Members who are able to accept this invitation must leave in January, 1914, the trip requiring three months. Members who desire to make this trip will be furnished with letters of introduction to the New Zealand Medical Association and the Australian Medical Society announcing their membership in the American Medical Association. Literature concerning New Zealand and the trip, sent from Auckland, is in the hands of the secretary of the Association.

THIRD.—In considering the resolution offered that the amendment to the By-Laws, Chapter 4, Section 5, be adopted: That the House of Delegates, at its last session, shall elect a speaker who shall preside during the following twelve months and until his successor shall be elected, the Judicial Council desires to point out that there is a principle involved which is broader than the question whether or not there should be a speaker elected for the House of Delegates. This question is the wisdom or power possessed by one House of Delegates, half of whose members must be reelected to be present in the succeeding House, to elect a presiding officer for the succeeding House of Delegates. The Judicial Council considers that the wisdom of such action is questionable. It would seem that each House of Delegates is best able to elect its own speaker to preside at its deliberations, and it would seem wiser, if a speaker were to be elected, that he should be elected at the first session of the House of Delegates to preside over the

succeeding meetings. Each House of Delegates thus would choose its own speaker, who, if desired, could hold over as an active officer until his successor was elected by the next succeeding House of Delegates. The House of Delegates has at present five presiding officers, i. e., the president and four vice-presidents. The House of Delegates now has it within its province to select at least one of the vice-presidents because of his ability and fitness to aid the president in presiding over the House. The Judicial Council, therefore, considers that this resolution brings up two questions, first, whether or not a speaker should be elected to preside over the House of Delegates, and second, whether this officer should be elected by each House of Delegates for itself to preside over its sessions or whether any given House of Delegates should elect a presiding officer for a succeeding House without this succeeding House having any say in the matter. The Judicial Council believes that it should not decide these questions. It, therefore, makes the following recommendation: that the House of Delegates shall choose a time and an hour at this meeting in which it shall sit as a committee of the whole to consider and decide these questions for itself.

FOURTH.—The Judicial Council desires to make the following report concerning its investigation on the matter of secret division of fees, the giving of commissions and the matter of contract practice.

The Judicial Council in endeavoring to obtain information on these subjects believed that it was acting as an impersonal body to obtain information for the members of the American Medical Association as to the prevalence of these practices throughout the United States and the relative prevalence in each state and section of the country, and while gathering this information it desired also to obtain the opinions of the different members scattered in various sections regarding the apparent cause of these practices and also an expression of opinion from those who justified the practice and from those who condemned it. It was necessary, therefore, to send out some standard circular in which uniform questions could be asked that answers could be obtained from which uniform standards of judgment could be made. It was further evident that an impersonal investigation should not ask specific names and instances. The detective point of view of seeking guilt should not be the motive which prompted this investigation, but that of an impersonal, fair-minded seeker after knowledge. To obtain these ends the following circular was sent:

Dear Doctor:—The House of Delegates of the American Medical Association at the Atlantic City meeting held June, 1912, instructed the Judicial Council to investigate and report next June on the secret division of fees, taking of commissions, and contract practice. In compliance with these instructions, the Judicial Council is asking certain prominent members of the profession in all the states of the Union to answer the accompanying questionary. Your name will not be used or referred to as the source of any information you may give. While the citing of specific instances may seem wise to you, the Council at this time does not desire to make use of definite individual cases but wishes rather to obtain a general knowledge of the existence of these practices in the various communities in the different states and to estimate as accurately as possible the economic and social cause for these practices. The number which appears on the form for reply indicates the locality from which the reply is obtained, so that it will not be necessary for you to sign this information blank. The Judicial Council will greatly appreciate your cooperation if you will fill out the blank and return it in the enclosed stamped envelope to the Secretary of the Council, 535 Dearborn Avenue, Chicago.

Very truly yours,

ALEXANDER LAMBERT, Chairman.
A. B. COOKE,
JAMES E. MOORE,
HUBERT WORK,
GEORGE W. GUTHRIE,
ALEXANDER R. CRAIG, Secretary.

1. How prevalent is the secret division of fees (i. e., without the full knowledge of the patient) in your community?

2. Are you practicing one of the specialties? If so, what?

How often have you been asked during the year 1912 by those referring patients to you to divide the fee, or grant a commission?

How often have you been offered part of the fee or a commission for referring cases?

In how many instances was the patient acquainted with the terms according to which the division was to be made?

Can a secret division of fees or the granting of commissions be justified? If so, on what grounds?

3. In your locality, do the hospitals or sanitariums offer commissions for the reference of patients?

Do pharmacists offer or give commissions. Do houses furnishing medical or surgical supplies or appliances offer or give commissions?

Do you know of instances of physicians demanding any of the above commissions?

How prevalent is this practice?

4. What form of contract practice, if any, exists in your community?

(Kindly use the following division in answering this question, and give the terms of the usual contract so far as known, stating both the service required and the return made.)

(a) Mines
(b) Factories
(c) Railroads
(d) Lodges
(e) Municipal

5. What is (a) the cause and what (b) the effect on the profession of the secret division of fees?

Of taking or demanding commissions?

What economic or social conditions account for the contract practice that exists:

(a) Mines
(b) Factories
(c) Railroads
(d) Lodges
(e) Municipal

6. Are your answers to these questions based on personal knowledge or rumor?

A circular was sent to each president and to each secretary of each county society in every state in the United States and the various sections of the country were further apportioned off to the members of the Judicial Council who sent throughout their sections personal letters containing these circulars to various members of the profession whom the members of the Judicial Council knew to be prominent in their sections and who would be conversant with the public opinion and the practices of the various members of the profession in their communities. Some six thousand circulars were thus sent out and the replies received amounted to just over 50 per cent. of the circulars sent. Thus, considering the membership of the American Medical Association as seventy thousand, about 8 per cent. have been circularized and the report made is based on the answers and the knowledge obtained from some 4 per cent. of the total membership. This is approximately the same proportion of the American Medical Association which is usually present at the annual meetings and is equivalent to a reply from half that number.

The report may be further said to be based on the opinion of those officially representing the ultimate constituent bodies of the American Medical Association in the various states together with the pick of the prominent and active members selected in each state.

It may be justly said, therefore, to be a report founded on the representative opinion of the members of the American Medical Association.

From the statistics thus gathered it is evident that in the matter of secret splitting of fees, while the existence of the practice cannot be denied in any state, the degree of its prevalence varies greatly in different sections of the United States and the opinion of the local profession for or against it also varies in different regions. In the New England states—Maine,

New Hampshire, Vermont, Massachusetts, Connecticut and Rhode Island—the practice is not prevalent though it exists to a slight degree in them all, being most prevalent in and towards the larger cities of Massachusetts and in that part of Connecticut that is near New York. In New York state the practice varies, some counties being nearly free of it, other counties and the large cities being filled with it. In New York City with its crowded population and with its large proportion of foreigners, in some sections of the city, among certain groups of men, it is without doubt the rule rather than the exception and this is true in spite of the increasingly strong opinion in the profession as a whole against the practice. In Pennsylvania it is a little less prevalent than in New York. New Jersey, Delaware, District of Columbia, Maryland, Virginia and West Virginia show a strong sentiment against it and not a great prevalence of the practice. Through the south generally the prevalence is not marked — Georgia, Arkansas, Texas and Tennessee showing a greater predominance of this practice than North and South Carolina, Kentucky, Mississippi, Louisiana, Florida and Alabama. Oklahoma on the other hand shows in strong contrast to other southern states in the great degree of its prevalence and in the stronger general opinion among the profession in its favor. Ohio, Indiana, Illinois, Iowa, Kansas, Missouri, Nebraska, North and South Dakota and Wisconsin show the greatest prevalence of this practice of anywhere in the United States and the profession is divided between a vigorous opposition to the practice and an equally cynical low standard justifying it. In Minnesota and Michigan the practice, though prevalent, is less widespread than in the other states just mentioned. Secret fee splitting is also fairly prevalent in Utah and Colorado. It is much less so in Arizona, New Mexico, Wyoming and Montana. It becomes prevalent again in Idaho, Washington, Oregon and is exceedingly prevalent in California.

It is interesting to note that in the replies given stating whether or not secret fee splitting was justifiable, there was 77.3 per cent. who answered in the negative, 13.4 per cent. who answered in the affirmative, and 9.3 per cent. who were doubtful.

By the term secret splitting of fees here used is meant the sharing by two or more men in a fee which has been given by the patient supposedly as the reimbursement for the service of one man alone. By secrecy is meant that the division of the fee is done without the knowledge of the patient or some representative of the family. It necessarily does not include any agreement between the patient or his representative made with one or more physicians or surgeons. It also does not include any payment to bona fide assistants with or without the knowledge of the patient or his representative. It does include, however, those cases in which the term assistant is used as a subterfuge to obtain a part of the fee which otherwise could not be rightfully claimed. The term commission here used refers to those rebates, "rake offs," or pro rata moneys sent for referring patients or favors received and not for medical and surgical services rendered to the donor by the receiver.

In the last twenty-five years surgery has developed to such an unprecedented degree compared with its former possibilities that it has entirely changed its relative position to other branches of medicine. Surgery *per se* compared with internal medicine to-day, as it appeals to the lay mind, is practically the difference between the abstract and the concrete. Surgery is a concrete service of a visible, definite kind easily appreciated by the same average intelligence which fails to appreciate any abstract service however valuable. There is no question that modern surgery has diminished the sum total of human suffering and has added to the average length of human life among the nations in which it is practiced to-day. The lay mind sees and appreciates it and is therefore willing to pay for its performance as the only practical return that can be made for the blessings that it gives. But surgery demands a knowledge of detail and a clearness of conception for its best performance, requiring both great manual dexterity and great brilliancy and acuteness of intellect to reach its highest perfection. As a logical sequence to this the pecuniary reward given to different surgeons for apparently the same service may vary greatly. All this is appreciated by the lay mind; it is unquestioned, its logic is recognized and the rewards that follow in this world's goods are naturally great.

On the other hand medicine has concerned itself and still concerns itself with the more abstract problems of inoperable disease and has cared for the nagging ailments of daily life and the intangible struggle against unseen infections, and it has shown its greatest triumphs in the prevention of disease. It has diminished and prevented an enormous amount of human suffering and it has far outstripped even surgery in its benefit to the race in the prolongation of the years of health and of human life. But great as the service has been, it is a negation compared to the positive action of surgery. The just appreciation of this service and these daily services that a physician gives requires a greater intelligence and a higher civilization than the average human being has reached or possesses. The fees therefore of the physician have lagged behind those of the surgeon and the worldly rewards in internal medicine are not as great as those of surgery. More than that, the rewards given to physicians are on the average given more grudgingly than to the surgeon. The surgical fees are enormously greater than they were twenty-five years ago; medical fees still remain practically the same, and except in a few large centers have hardly advanced at all. Oftentimes, especially in smaller communities, physicians giving their time, draining their personalities, giving of all that is in them, find that the sense of obligation to reward them for their service diminishes in direct ratio as a feeling of friendship from their patient increases, with the result that they cannot collect a fee for an honest, difficult, scientific diagnosis which results in the life-saving operation for their patient, while the surgeon who does the mechanical operation readily collects a relatively large fee.

The value of the services of the general physician are still misunderstood, are still estimated far below their worth. Added to this the economic pressure on the physician to live on a small income and care for his family is becoming increasingly difficult. It is easy to understand, therefore, that under the strain of the struggle for existence, the physician, seeing his more fortunate brother obtain relatively large fees for apparently easier work, should be filled with envy and his sense of moral obligation and his duty to his patients should suffer in consequence. On the other hand, taking into account the competition among the surgeons for opportunities to work, with a desire to increase their clientele and income, it is easy to understand how they have stifled their consciences and have yielded to the temptation to bid for the work of their wavering confrères. Excuses are easily thought of and easily made. The lower morals and lower standards of the average commercialism which they see around them are easily copied. The younger surgeon desiring to start will make his bids to split his fees and will gain a bigger clientele and become more quickly established. Physicians unable to collect their fees will endeavor to throw the responsibility on the surgeon and obtain through him, as a partial collector from their clients, the moneys which they should collect for themselves directly from their patients. The result is demoralizing to them both. The patient is brought to the surgeon who will split off to the physician the greatest percentage of his fee irrespective of whether or not that surgeon is the best one to perform that operation on that given patient. Furthermore, the temptation soon arises to operate unnecessarily that the surgeon may have his fee and that the physician may obtain his share. From what at first seems but a harmless endeavor to collect part of uncollectable moneys due him for his work, the physician may find himself in the unhappy position of having degenerated into one who dishonestly is exploiting his patient for an unnecessary operation that he may share the proceeds of a dishonorable act. The surgeon who aids and abets in these practices or who trusts to the size of his bid to increase his surgery, has demeaned himself and has equally degenerated from an honorable to a dishonest man.

It is interesting to note the reasons given for this secret fee splitting, as justification, in the statistics which form the basis of this report. One of the commonest reasons is that it is justifiable because of the disproportionate fee between the

amount paid the surgeon and the amount paid the physician who has made the diagnosis and referred the patient to the surgeon. This is on the basis that a wrong has been done the physician because his services are not as well paid as the surgeon's. But two wrongs never yet made a right, and the further wrong doing of taking a patient to a surgeon because he will split the most generously does not remedy or make up an injustice however great to the physician. The physician's remedy is along other lines, not one of dishonesty to his patient in which he betrays him according to the size of the fee obtained. Another reason given is that it is nobody's business what a surgeon does with his fee after he has earned it. But it is the patient's business to know for what he is paying, whether it is that he is paying for the best work obtainable from the best man to perform that work or whether he is paying an inferior man to consummate a dishonest bargain with his physician, and the patient has a legal and a moral right to know which he obtains. Many other reasons are given, all of them expressing in some change of thought and language that the splitting of a fee is justifiable because the patient will pay more readily for the work of a surgeon than for the work of the family practitioner, all of them containing the same fallacy that it is justifiable to exploit a patient for all the money that can be squeezed out of him and not on the basis of giving the best service possible. Other reasons are that fee bills charge too little for medical skill and too much for surgery. Here, too, the remedy lies in the hands of physicians themselves and gives no justification for the exploiting of patients. Other answers are more frankly truthful, such as "purely on the grounds of good business," and "because every one else is doing it," and "unless you do some other man will." These frankly but tacitly admit the low standard of commercialism on which these men have put their profession.

Commissions are of two kinds. First are those which are given pro rata by a consultant for every patient sent to him. This practice is more commoin in some localities than in others. In one large city it is not uncommon among a certain group of men. Some of them frankly admit that they earn their bare living with their practice, but their main income comes as a steady return from the consultants to whom they send patients, these consultants rendering a definite amount at the first of each month for each patient sent. This, of course, is just plain cynical, dishonest exploitation of the patient. A patient is sent to the man who is willing to be the most dishonest and give the biggest commission and charge the patient for his services according to the ratio of the split he must make and not according to service alone. There is again no consideration whether the patient will receive good or inferior treatment from such consultant.

The other kind of commission is that which is received by physicians from pharmacists or from instrument houses or those commercial houses furnishing medical or surgical supplies and appliances. This form of commission, unfortunately, is exceedingly wide-spread, especially in prescribing or supplying elastic stockings, trusses, belts, braces and similar articles. It is immaterial whether a certain definite commission is sent regularly as each patient is referred, or whether the patient is charged a high retail price for the apparatus and the difference between the retail and the wholesale price to the trade given to the referring surgeon. It is exploiting a patient and obtaining money for service not rendered. The surgeon does not give the appliance to the patient; the patient buys it from the commercial house and the surgeon has already charged his fee for his advice and his services to the patient. This is grafting on the commercial house for an added fee to be taken from the patient who is supposed to be buying an instrument at a fair price and who is not supposed to be further adding an underhand fee to the surgeon. It is dirty graft, pure and simple, to the disgrace of men who practice it.

There is another form of commission and that is the rebates offered by hospitals or sanatoriums to those sending patients. This has become so wide-spread that many hospitals in their circulars openly offer commissions to those who will send them patients. In some localities those commissions are taken for granted and physicians will call up before sending their patients to these hospitals and sanitariums and ask to be informed of how much rake off they are to obtain—15 or 20 per cent. or even more. In New York 15 per cent. is the usual amount demanded among those given to this practice. This is the same dishonest exploitation of a patient. The patient goes to this hospital supposedly paying for service he is to receive, and it is a dishonest betrayal of a patient to take from him in an underhanded way moneys which have not been earned. This cannot be justified; it is straight dishonesty.

All medical practice is contract practice either implied or expressed between the physician and the patient if the patient be of legal age, or between the physician and the parents or guardians of a minor. There is no reason in law or morals why a physician should not enter into a contract with an individual, firm or corporation, provided that the contract be an honorable one for the performance of an honorable act and not interfering with the rights of others. Contract practice here considered is not the contract usually implied but which at times may be definitely stipulated between the physician and the individual patient. The other forms of contracts into which physicians enter are those between the physician or surgeon and business corporations such as railroads, mining, manufacturing and life insurance companies. In another class are those between medical men and benevolent or fraternal associations, the so-called lodge practice. Another kind of contract is that between physicians and the industrial insurance companies. The lodge practice and the industrial insurance work stand out distinctly on a different basis from the other contracts with economic corporations. The contracts made between physicians and economic corporations are necessities in our present stage of economic development. Surgeons and physicians are employed by these corporations partly as a matter of self-protection that they may properly care for the accidents occurring in the transaction of their business and that they may be protected against unjust damage suits that are likely to occur, for should they not be so protected it is possible for these companies to be wiped out of existence in a few years by the enormous mass of damages brought against them. Besides this self-defence of the company, there is a growing appreciation by large corporations that the better the health of their employees is protected the better will be the results obtained in their work, and hence while it may tend toward benevolent and socialistic ideas, it is really a question of economic efficiency. Further, many lumber and mining camps are widely distant from towns and places where physicians would naturally settle and these camps need some medical man to care for the men employed. All such contracts as these are necessities and should be recognized as such, the only question arising being the details of the contracts and the fairness of the remuneration given. If medical men are poorly paid and paid below the possibility of a fair living wage, they give poor service in return and there is a law of diminishing returns even in the matter of medical services. Poor, underpaid medical service, is a foolish and expensive economy to corporations.

In the matter of lodge practice and fraternal and benevolent societies, another situation arises, namely, the question of health insurance. Medical attendance in the lodges and fraternal and benevolent associations is a part of the inducement for the joining of these associations. There is a point in wage earnings at which these lodge medical services are not economic necessities, but on the other hand there is a point in wage earnings at which the ratio of fixed charges to total income is such that these fraternal societies do become an economic necessity in the sense of health insurance. The late Dr. Bristow, in an address before the New York Academy of Medicine, strongly emphasized this point of view. He further showed that in the United States the annual income of adult males is in 90 per cent. less than $800, in 75 per cent. less than $600, and in fully 50 per cent. less than $500, with 20 per cent. earning as low as $200 per annum. It further is a noticeable fact that the smaller the income the larger the family. There is no question that the fixed charges for necessities against a small income are a large proportion of the total of that income. Moreover, with the poor earning their living by a daily wage, if sickness comes on them their income ceases and whatever savings they may have been able to scrape

together quickly vanish for the mere necessaries of existence. In cities these necessities for medical attention are met by the free dispensaries and free hospitals and the mass of population has become medically pauperized through the sheer necessities of their environment. On the other hand, the result on the medical profession of this economic situation is that hardly more than 10 per cent. of the physicians in the United States are able to earn a comfortable income. The medical profession finds that an adequate medical education requires of students a constantly increasing length of time and of money for its attainment. It is the most costly of all the learned professions, and with living expenses constantly increasing and with the physician's opportunities of earning a livelihood from the general population constantly diminishing, and further with the profession devoted to self-immolation by its constantly increasing development of preventive medicine and sanitation, we are forced to consider the situation as one produced by economic forces and that lodge practice under certain circumstances is one of health insurance that must be accepted and controlled, not condemned and shunned. No one questions the right of any man to take out a health policy in an ordinary health insurance company. No one questions the right of that man by this policy to pay from $60 to $300 a year as an insurance against his possibility of accident or disease and possible temporary or permanent invalidism occurring to him in the work peculiar to the medical profession. How then does this differ from the dollar a year that members of the lodges and societies pay for the privilege of obtaining medical services and care in accident and sickness if these misfortunes come to them? There is no difference in principle; there is no difference in the economic necessity of it. As such it should be recognized and treated. The question comes down then to the designation of the weekly or monthly income at which this should be treated as an economic necessity and above which it is an economic luxury. These economic conditions have been reached in the countries of Europe and have recently caused a vigorous struggle between the medical profession and the government in England. It is useless to struggle with "whereas's and resolutions" against these economic facts. It is time for the American Medical Association and its constituent bodies to look these facts squarely in the face, to accept them and by instituting fair control to see that justice is given to the members of their profession and that an equal social justice is given to the poor whose necessity demands this sort of service.

The necessity for action to remedy the evils of secret fee splitting and giving and receiving of commissions is self evident. Those who are indulging in these practices are bringing the whole profession into disrepute. Many beliefs and standards of society are on trial and the standards of the medical profession are being judged by the public and weighed in the balance. Heretofore the profession has always endeavored to render to all men its best services irrespective of the rewards received. If through secret fee splitting and commissions the standards of the medical profession are changed from giving to patients the best service possible to squeezing from them the biggest attainable fees, then will the medical profession be deemed to have been weighed in the balance and found wanting. The confidence and respect now given it by the public will be destroyed.

The remedies for the conditions here discussed lie partly in the hands of the American Medical Association, partly in the hands of the constituent state and county bodies and partly in the hands of the medical profession as individuals. The secret splitting of fees and the giving or receiving of commissions are best remedied by the profession announcing that it demands publicity in all transactions between patients and the members of the profession and refuses to sanction the retention on the roster of any of its organizations the names of those who are proved guilty of these practices.

The teaching of the ethics of the medical profession and of the high standards held by this profession should be given to each medical student before graduation. The young men should not be turned loose on the world ignorant of the high ideals and standards which the medical profession always has and always will stand for. Many young men have yielded to the temptation of commercialism because they were ignorant of higher professional standards and knew only the commercial standard of *caveat emptor* — "let the buyer beware." The rules of *caveat emptor* are out of place in the dealings of the medical profession. The physician has himself to blame who, through failure to put a just appraisal on his services and to demand a just reward for them, and who, through failure of endeavor to collect his just deserts, finds himself unappreciated and unrewarded. The foolish ancient idea that accounts must be sent out but once or twice a year, lax systems of accounts and collections, have much to do with the small incomes of many physicians. The human mind appreciates most those things obtained through struggle and for which a price has been given. It appreciates least those things which have come unsought and unpaid for. In a physician's service human sympathy, kindliness and sturdy friendship are thrown in for good measure to time spent and knowledge given, and though desirable, are imponderable and are to be left unmeasured. But time and knowledge can be measured and used for basis of recompense, and although it may seem an abstract service, it is one the public can appreciate and can be educated to realize that it has a value as high as things tangible and concrete. Surgeon's fees are based on a broader consideration of the value and amount of service rendered than are those of physicians. But the latter are expected to charge the same for a call to relieve a sniveling coryza as one to relieve the pains and dangers of angina pectoris. For this reason the fees of surgeons are likely to remain near their present level but the fees of physicians must gradually change and grow to be more in proportion to services rendered than at present. Lack of frankness between the profession and their patients and lack of friendly assistance between surgeon and physician in discussing with patients the business side of the services given, are fertile sources of misunderstandings and opportunities of sly practices, while the reverse is equally true that frankness and definite understandings between medical men and patients prevent these evil practices.

The replies received by the Judicial Council on the matter of contracts in mines and railroads and factories show that in some states the contracts are just and that the recompense to the physician is in ratio to services rendered and is adequate in amount for such services. On the other hand there are other replies which show the reverse. The Judicial Council believes the remedy for these evils resides in the county societies, that these societies should use their influence and power not to condemn the physician who must take the contract by ostracizing him, but to prevent underbidding for these contracts below what would give a fair reward for medical services rendered. So, too, in the matter of lodge practice, the Judicial Council believes it to be the duty of the local county societies to endeavor to reform and not alone to condemn the abuses of lodge practice. These abuses are many and are unfair alike to the medical man and to the lodge members. But because lodge practice is the expression of health insurance it must sooner or later be faced. The British Medical Association has faced these problems and the American Medical Association will do well to consider seriously similar action. Properly controlled, the lodge practice should bring an adequate service to its members and an equitable remuneration to the medical man. The details, however, are to be left to each locality and county society. From the experience of the British Medical Association it is evident that there should be an income limit (put at ten dollars a week in England), free choice of doctor by patient among the doctors under contract, and consent of doctor to act, the medical profession to be in control and to administer the medical and maternity benefits and the medical remuneration to be what the profession considers adequate ($2.12 in England) and the method of remuneration of the medical practitioner adopted by each local health committee to be according to the preference of the majority of the medical profession in that locality.

The Judicial Council recommends for adoption by the House of Delegates the following resolutions:

Resolved, That any member of the American Medical Association found guilty of secret fee splitting or of giving or receiving commissions shall cease to be a member of the American Medical Association.

Resolved, That the House of Delegates of the American Medical Association recommends to each constituent body that it endeavor through the action of its various county societies to reform the various abuses of lodge practice in their separate communities in order that the lodges may give an adequate service to its members and an honorable remuneration to the medical men.

Respectfully submitted,

ALEXANDER LAMBERT, Chairman.
A. B. COOKE.
JAMES E. MOORE.
HUBERT WORK.
GEORGE W. GUTHRIE.
ALEXANDER R. CRAIG, Secretary.

On motion, the various sections of this report were referred to the appropriate committees.

Dr. Henry B. Favill, Illinois, Chairman, presented the report of the Council on Health and Public Instruction, as follows:

Report of the Council on Health and Public Instruction

To the Members of the House of Delegates of the American Medical Association:

The Council presents herewith its third annual report.

In accordance with the plans of the Council, as outlined in the report of last year, in which the Council declared that, in its judgment, its principal mission is the development of public confidence in the purposes and the work of the American Medical Association and of the profession, the Council has continued the work begun last year, at which time the following activities were outlined:

1. Continuation and extension of the Press Bureau.
2. Organization of a Speakers' Bureau.
3. Compilation of a handbook for speakers with other literature necessary for the Speakers' Bureau.
4. Organization and development of a Bureau of Literature.

PRESS BUREAU

The Press Bulletin has been continued throughout the past year, a weekly bulletin being prepared and mailed to approximately five thousand newspapers and publications. During the year from June 1, 1912, to June 1, 1913, forty-four press bulletins have been issued, with an average circulation of 4,763. The effect of this bulletin on the newspapers of the country is apparent. Not only are the items contained in the bulletin more generally used than in previous years, but there has been a marked changed in the attitude of the press toward the medical profession and the Association. Editorials criticizing physicians as a class are by no means so common as they were in previous years, while an increasing number of newspapers use the press bulletin material regularly and as texts for editorials. One gratifying indication of this change of attitude is that during the past year a number of publications which were not receiving the bulletin have asked to have it sent to them, while out of nearly 5,000 publications to which it has been sent, only five have asked to have it discontinued. As the methods of handling the bulletin, as well as its contents, were exhaustively discussed in previous reports, it is not necessary to go into further details on this subject.

SPEAKERS' BUREAU

In the report for 1912 appeared the plans for the organization of a Speakers' Bureau, as well as a report on the experimental operation of such a bureau, from January 1, 1912, to May 1, 1913. As was stated, the principal object sought at that time was to secure experience as to the best methods of handling such a bureau, also to devise methods by which the correspondence with speakers, local committees, etc., could best be handled.

Following the session of 1912, an enlarged list of speakers was compiled, containing carefully selected names distributed as widely as possible throughout the country. Each of these speakers was asked to fill six appointments from Oct. 1, 1912, to May 1, 1913. An announcement, in the form of an attractively gotten up pamphlet, was prepared, containing the names of the speakers, their subjects and the conditions under which they would speak, directions for securing a speaker, application blanks, etc. This pamphlet was mailed on Oct. 19, 1912, to the secretaries of all local medical societies, women's clubs, colleges, universities, normal schools, Chautauquas, state superintendents of education, and others, as follows:

Secretaries of local medical societies	1,986
Secretaries of women's clubs	6,136
Secretaries of colleges, universities, etc	636
Principals of normal schools	331
Chautauquas	301
State superintendents of education	49
Miscellaneous, including secretaries of state societies, officers and members of permanent committees of the American Medical Association, etc	1,955
Total	11,394

Owing to the late date at which the announcement was mailed, many of the organizations had completed their programs for the coming winter. In spite of this, however, a large number of requests were received. Speakers have been furnished under the following conditions: that the meeting should be held under the auspices of a local committee, representing all the organizations in the town interested in public health; that the meeting should be well advertised and should be open to the general public; and that the local committee should bear the expenses of a meeting place and of advertising. On these conditions speakers have been furnished for 213 meetings held in the seven months from November 1, 1912, to June 1, 1913. Many requests have been denied, either because the invitation came from a single organization or because the town was too small and the audience offered would not justify the expenditure. The revision of the list of speakers and the preparation of an announcement for the coming season is now being carried on.

SPEAKERS' HANDBOOK

As soon as requests for speakers began to come in, the secretary began to receive requests from various speakers for information and statistics on different subjects. In order to supply speakers with the needed facts in convenient form, the Council authorized the preparation of a speakers' handbook. Chapters were compiled on the more important preventable diseases. Owing to the demand, the book was issued in the form of two pamphlets, which contained various chapters in the order of their compilation, as follows: Yellow Fever, Bubonic Plague, Typhoid Fever, Tuberculosis, Diphtheria, Acute Anterior Poliomyelitis, Meningitis, Infant Mortality, Small-pox and Vaccination, Asiatic Cholera, Scarlet Fever, Typhus Fever, Pellagra, Malaria, Hookworm, Vital Statistics, the Development of Scientific Medicine in the Nineteenth Century. Additional chapters on Venereal Disease, Medical Martyrs, School Hygiene and School Inspection have since been prepared and will be included in the next edition of the handbook, in which the chapters will be arranged in a more logical order. This book has been sent to all speakers, as well as to others interested in public health and public education.

PAMPHLET FOR LOCAL COMMITTEES

Experience has shown that it is impossible to secure results from public health meetings no matter how able the speakers may be unless a carefully planned campaign of advertising and publicity is carried on before each meeting. Experience gained during eight years of management of Dr. J. N. McCormack's meetings has demonstrated the value of certain methods and the uselessness of others. In order that the best possible results may be secured, it is necessary that the local committee in charge of the meeting follow definite instructions. For the information of local committees a small pamphlet of fourteen pages has been prepared, entitled, "How to Hold a Successful Health Meeting, or Suggestions to Local Committees in Arranging for a Public Health Meeting." This pamphlet contains specific instructions on how to organize a local committee, how to secure united public support, how to secure

speakers, what kind of a meeting place to secure, how to advertise the meeting, what arrangements to make for the meeting itself, how to secure the best results after the meeting, etc. This pamphlet is sent to all members of local committees, as well as to all persons who make inquiry regarding the work of the bureau. It also contains facsimiles of window cards, posters, personal invitation cards, etc.

The devising of a duplicate card index system by which the appointments for each speaker are kept on one card and the appointments for each town on another, and the preparation of a system of form letters completed the machinery of the speakers' bureau. The plan now followed is generally about as follows: An inquiry is received from a secretary of a medical society, woman's club, or other organization, asking whether a speaker can be furnished for a certain date. In reply a copy of the announcement and the pamphlet of suggestions is sent, together with a statement of the conditions under which a speaker will be furnished. This is usually followed by the organization of a representative local committee of arrangements, the securing of a meeting place, the selection of a date and an application for a speaker. Local committees are asked to indicate a first, second and third choice, so as to avoid delay and correspondence. The invitation, giving the place and date, is then placed before the speaker asked for, and correspondence carried on until the satisfactory arrangements are made and the date is closed. At least three and, better, four weeks are necessary after all arrangements are made in which to advertise the meeting and arouse public interest. Hastily arranged meetings have, almost without exception, proved failures. Copies of the pamphlet of instructions are sent to all persons interested and efforts at publicity, proper advertising, etc., are stimulated by correspondence. Following the meeting the speaker is asked to report on the character of the audience, the nature of the arrangements and the evident impression made, while the chairman of the local committee of arrangements is asked to report on the character of the address, its appropriateness, the manner of its reception, together with newspaper facts and editorial comments following the meeting.

In the light of the experience of the past seven months the most promising fields for this work seem to be women's clubs, normal schools, colleges and other educational institutes and Chautauquas. Teachers' institutes and farmers' institutes, alliances and granges were not included in the plans for the past year owing to the difficulty experienced in securing a complete list of these organizations. They can probably be included in plans for the coming year.

In developing this work the Council needs the support of the members of the Association and especially needs more volunteer speakers. In the Western states, especially where distances are great and the population scattered, more speakers are needed for each state than in the more densely populated Eastern states. Many of the appointments during the past year have been filled by speakers at considerable self-sacrifice. If the work is distributed among a larger number of speakers it will be much easier to meet the calls made on the bureau.

STATE COMMITTEES RECOMMENDED

As this work develops it will be manifestly impossible for speakers to be supplied from the headquarters' office of the Association to fill all the appointments. Many of the requests come from towns too small to justify the expense of sending a speaker from any considerable distance. In the smaller communities members of local county societies who desire to take up this work could meet the demands quite as well as the speakers from the bureau. The supplying of speakers for such places is clearly a function of the state society. No amount of expense is involved, as speakers could be secured from the same town as that in which the meeting is to be held, or one near by. To attempt to handle the details of such a large number of meetings through the central bureau would involve too much detail and correspondence. This work is of the utmost importance and should be taken up, however, by each state society.

The Council, therefore, recommend that each state, which has not already done so, be asked to establish a standing Committee on Public Education, either as a separate committee or in conjunction with other duties, and that this committee have oversight of the work of furnishing speakers for the state, calling on the Speakers' Bureau of the American Medical Association to furnish speakers from a distance for the larger and more important meetings. By such a division of work, the activities of the Association in this direction could be greatly extended. Each state committee could call on the Speakers' Bureau of the American Medical Association to furnish speakers for from five to ten meetings in each state during the year, leaving the remainder of the meetings to be addressed by local speakers furnished by the state committee direct. This plan would also put the management of these meetings under the jurisdiction of the state societies, and would make the work of public education a function of each state association. Literature, methods and suggestions can be furnished by the central bureau, which would then be able to keep in touch with the situation throughout the entire country by corresponding with the chairmen of the various state committees.

BUREAU OF LITERATURE

The organization and conduct of the Speakers' Bureau, the preparation of the handbook and other activities of the Council have prevented the elaborate development of a bureau of literature. The following pamphlets, however, have been issued during the last ten months:

1. The Influence of Antivivisection on Character. By Dr. W. W. Keen, Philadelphia. Being Pamphlet No. 24 of the Defense of Research Series.

2. Antivivisection Legislation: Its History, Aims and Menace. By Dr. Walter B. Cannon, Boston. Being Pamphlet No. 25 of the Defense of Research Series.

3. A Program for Local and State Organizations for the Suppression of Tuberculosis. By Dr. J. W. Pettit, Ottawa, Ill.

4, 5, 6 and 7. A series of four pamphlets by Dr. Winfield S. Hall, Chicago, on Sex Hygiene for Boys and Girls.

8. The Pasteurization of Milk. By Prof. E. O. Jordan of the University of Chicago.

9. Why Should Births and Deaths Be Registered? A Revision of the Vital Statistics Pamphlet Containing the Model Law.

10. Death and Blindness from Wood-Alcohol Poisoning. By Dr. Casey A. Wood, Chicago.

11. Progress in Sterilization Legislation. Compiled by the Medicolegal Bureau.

12. Medical Inspection of Schools; A Summary of Existing Legislation. Compiled by the Medicolegal Bureau.

13. Laws Prohibiting Fraudulent Advertising. Compiled by the Medicolegal Bureau.

14. State Regulation of Marriage. Compiled by the Medicolegal Bureau.

The Council has in process of development a plan for the publication of a series of pamphlets on preventable diseases and other subjects in cooperation with the various state boards of health. This plan was submitted to the state boards by correspondence and has been endorsed by thirty-six of the forty-eight boards of health. Further details will be presented in a subsequent report.

CARTOONS

During the past year the forty-eight cartoons which have appeared in THE JOURNAL have been reproduced either on large sheets of cardboard, 22x28, for exhibition purposes, or in the form of stereotype plates, suitable for use in newspapers, magazines, etc., and have been furnished to those desiring them either singly or in sets at a cost price of 35 cents each.

LANTERN SLIDE BUREAU

The organization of a bureau for loaning lantern slides to speakers, local societies and others, has been begun but is not yet sufficiently advanced to render a definite report possible at this time.

PLANS FOR 1913

At the meeting of the Council held October 19, 1912, the Secretary presented four propositions for consideration for 1913. These were:

1. The preparation of standard pamphlets for state boards of health referred to above and discussed in previous reports.

2. A survey of the work and equipment of the various state boards of health, with a view to securing information which will enable the Council to compile a report showing exactly what is being done for the advancement of public health through governmental agencies, and how much this work is costing.

3. A conference of executive officers of the leading organizations to discuss mutual cooperation and proper division of the field, with the elimination of unnecessary organizations and the coordination of existing activities.

4. The establishment of a legislative and medicolegal bureau at the headquarters of the Association.

CONFERENCE OF PUBLIC HEALTH ORGANIZATIONS

The first two subjects are still under discussion. On the third proposition the Council authorized the Secretary to correspond with the executive officers of the various national organizations interested in public health, with a view to calling a conference of those interested. Three circular letters were sent out to all organizations interested in such work so far as could be ascertained. About fifty organizations were invited as follows:

ORGANIZATIONS INTERESTED IN PUBLIC HEALTH TO WHICH AN INVITATION WAS SENT

American Red Cross Association. Ernest P. Bicknell, National Director, Washington, D. C.

Russell Sage Foundation. John M. Glenn, Director, New York City.

General Federation of Women's Clubs. Mrs. S. S. Crockett, Chairman, 710 Belmont Avenue South, Nashville, Tenn.

American Association for the Study and Prevention of Infant Mortality. Mrs. Gertrude B. Knipp, Executive Secretary, 1211 Cathedral Street, Baltimore, Md.

American Association for the Study of the Feeble-Minded. Dr. A. C. Rogers, Secretary, Faribault, Minn.

American Public Health Association. Selskar M. Gunn, Secretary, 755 Boylston Street, Boston, Mass.

American Society of Sanitary and Moral Prophylaxis. Dr. Prince A. Morrow, President, 66 West Fortieth Street, New York City.

National Association for the Study and Prevention of Tuberculosis. Dr. Livingston Farrand, Executive Secretary, 105 East Twenty-Second Street, New York City.

National Association for the Study of Epilepsy. Dr. J. F. Munson, Secretary, Sonyea, New York.

National Child Labor Committee. Owen R. Lovejoy, Secretary, 105 East Twenty-Second Street, New York City.

American Association for Labor Legislation. Dr. John B. Andrews, Secretary, 131 East Twenty-Third Street, New York City.

Metropolitan Life Insurance Company. Dr. Thomas H. Willard, Medical Director, New York City.

Prudential Insurance Company. Dr. Walter A. Jacquith, Medical Director, Newark, N. J.

National Committee for Mental Hygiene. Clifford W. Beers, Secretary, 50 Union Square, New York City.

Ætna Insurance Company. Mr. C. E. Gilbert, Secretary, Hartford, Conn.

Association of Life Insurance Presidents. Robert Lynn Cox, General Counsel and Manager, 1 Madison Avenue, New York City.

Conference of State Provincial Boards of Health. Dr. H. M. Bracken, Secretary, Capitol Building, St. Paul, Minn.

Equitable Life Assurance Company. Dr. F. O. Wells, Medical Director, 165 Broadway, New York City.

National Conservation Congress. Thomas R. Shipp, Executive Secretary, Indianapolis, Ind.

National Woman's Christian Temperance Union. Mrs. Frances P. Parks, Secretary, 1730 Chicago Avenue, Evanston, Ill.

The Survey. Dr. Edward T. Devine, Editor, 105 East Twenty-Second Street, New York City.

National Breeders' Association. Hon. W. M. Hays, Secretary, Washington, D. C.

National Grange of the Patrons of Husbandry. Oliver Wilson, Master, 214 Callender Avenue, Peoria, Ill.

American Institute of Criminal Law and Criminology. Eugene A. Gilmore, Secretary, University of Wisconsin, Madison, Wis.

Postal Life Insurance Company. Dr. Eugene L. Fisk, Medical Director, 35 Nassau Street, New York City.

American Academy of Medicine. Charles McIntire, Secretary, Easton, Pa.

American Medical Association. Council on Health and Public Instruction, Dr. Frederick R. Green, Secretary, 535 North Dearborn Street, Chicago.

American School Hygiene Association. Dr. Thomas A. Storey, Secretary, Convent Avenue and One Hundred and Thirty-Ninth Street, New York City.

Committee of One Hundred on National Health. Miss F. Robbins, Executive Secretary, 105 E. 22d St., New York City.

National Council of Education of the N. E. A. Dr. Thomas D. Wood, Chairman, Columbia University, New York City.

United States Public Health Service. Rupert Blue, Surgeon-General, Washington, D. C.

Health Committee, American Association for the Advancement of Science. Prof. L. O. Howard, Permanent Secretary, Smithsonian Institute, Washington, D. C.

The Penn Mutual Life Insurance Company. Dr. Harry Toulman, Philadelphia, Pa.

The Rockefeller Sanitary Commission. Dr. Wickcliffe Rose, 725 Southern Building, Washington, D. C.

Bureau of the Census. Dr. Cressy Wilbur, Chief Statistician, Washington, D. C.

The American Federation for Sex Hygiene. Dr. James H. Foster, Assistant Secretary, 105 West Fortieth Street, New York City.

The American Museum of Safety. Dr. W. H. Tolman, Director, 29 West Thirty-Ninth Street, New York City.

Efficiency Society. Mr. H. F. J. Porter, Secretary, 29 West Thirty-Ninth Street, New York City.

American Statistical Association. Mr. Carroll W. Doten, Secretary, Boston, Mass.

The Actuarial Society of America, New York City.

American Iron and Steel Institute. Dr. Thomas Darlington, Secretary, 30 Church Street, New York City.

Playground and Recreation Association of America. Mr. H. S. Braucher, Secretary, 1 Madison Avenue, New York City.

American Physical Education Association. Dr. J. H. McCurdy, Secretary, 93 Westford Avenue, Springfield, Mass.

American Association of Societies for Organizing Charity. Mr. Maurice Willows, Associate Secretary, 105 East Twenty-Second Street, New York City.

The Scientific Temperance Federation. Cora Frances Stoddard, Corresponding Secretary, 23 Trull Street, Boston, Mass.

The Association of Life Insurance Medical Directors. Dr. Faneuil S. Weisse, Secretary, 34 Nassau Street, New York City.

The American Breeders' Association. Mr. C. B. Davenport, Secretary, Cold Spring Harbor, Long Island, N. Y.

National Commission on Milk Standards. Dr. Charles E. North, Consulting Sanitarian, 30 Church Street, New York City.

American Civic Association. Mr. Richard B. Watrous, Secretary, 913 Union Trust Building, Washington, D. C.

Department of Labor, Children's Bureau. Miss Julia C. Lathrop, Chief of Bureau, Washington, D. C.

As a result of this correspondence the Council authorized the Secretary to issue an invitation for a conference in New York. This was held at the headquarters of the American Association for Labor Legislation on April 12, officers representing thirty-nine organizations being present. The conference was called to order by Dr. H. B. Favill, chairman of the Council. Mr. John M. Glenn of the Russell Sage Foundation, New York City, was elected chairman, and Dr. John B. Andrews of the American Association for Labor Legislation, secretary. After an exhaustive discussion of the situation in which the need of better organization and coordination was generally admitted, the conference adopted a resolution offered by Prof. Irving Fisher, authorizing the chairman to appoint a committee of fifteen, to consider the entire question of public health activities and the ways in which they could be improved, and to report its findings with definite recommendations to a subsequent meeting of the conference. The chairman has appointed the following committee which is planning a meeting in the near future.

COMMITTEE ON COOPERATION

Surgeon-General Rupert Blue, M.D., United States Public Health Service, Washington, D. C.

Dr. C. V. Chapin, Health Officer, City Hall, Providence, R. I.

Robert Lynn Cox, General Counsel, Association of Life Insurance Presidents, 1 Madison Avenue, New York City.

Dr. Livingston Farrand, Executive Secretary, National Association for Study and Prevention of Tuberculosis, 105 East Twenty-Second Street, New York City.

Prof. Irving Fisher, Yale University, New Haven, Conn. Committee of 100 on National Health.

John M. Glenn, General Director, Russell Sage Foundation, 105 East Twenty-Second Street, New York City.

Dr. Frederick R. Green, Secretary, Council on Health and Public Instruction, American Medical Association, 535 North Dearborn Street, Chicago.

Selskar M. Gunn, Managing Editor, American Journal of Public Health, 755 Boylston Street, Boston.

Frederick L. Hoffman, President, Prudential Life Insurance Company, Newark, N. J.

Dr. John H. Mason Knox, Jr., Executive Committee, National Association for the Study and Prevention of Infant Mortality, 804 Cathedral Street, Baltimore.

Wickcliffe Rose, Secretary, Rockefeller Sanitary Commission, Southern Building, Washington, D. C.

Prof. Henry R. Seager, American Association for Labor Legislation, 131 East Twenty-Third Street, New York City.

Thomas A. Storey, Secretary-General, International Congress on School Hygiene, College of the City of New York, New York City.

Lawrence Veiller, Director, Department for Improvement for Social Conditions of the New York Charity Organization Society, 105 East Twenty-Second Street, New York City.

Thomas D. Wood, Chairman, Committee on Social Hygiene, National Educational Association, Teachers' College, Columbia University, New York City.

The importance of this conference and the value of the work of the Council in taking the initiative in bringing this about was generally recognized by those present. It is hoped that this movement may result in better coordination of the organized efforts for the conservation of life and health.

MEDICOLEGAL BUREAU

The fourth recommendation of the Secretary at the October meeting was the establishment of a medicolegal bureau, in which could be collected, under a competent person, all material bearing on public health legislation and activities, and in which could be established model laws, compilations of authorities and references, suggestions, recommendations and criticisms for the benefit of the state legislative committees, in order that some definite and persistent policy might be worked out and followed by the Association and its constituent parts in building up a system of public health laws for the protection of the public. This plan meeting with the approval of the Council and the Board of Trustees, arrangements were made for securing the services of a competent person to take charge of such a bureau, with the result that on January 1, Mr. John Hubbard, a recent graduate of the Northwestern University Law School, became a part of the staff of the Council. The collection of laws on public health topics has been completed and we have now undertaken the preparation of a series of model laws. A mailing list of approximately 1,000 names has been prepared to which has been sent a return card asking for an expression of opinion as to the ten most important subjects for state legislation. This list includes 52 governors, 49 chief justices, 218 members of the American Bar Association, 304 physicians, 90 secretaries of state boards of health and examining boards, 125 representatives of women's clubs, 48 state superintendents of education, 30 executive officers of national organizations and 256 presidents of colleges and universities. To this list will be submitted preliminary drafts of model laws for criticism, and the completed drafts of the laws for approval. The model law for the registration of vital statistics has been revised. A model law providing for the reporting of ophthalmia neonatorum has been prepared in conjunction with the Committee on the Prevention of Blindness and a model law for the organization of state boards of health is in process of preparation.

SPECIAL COMMITTEES

COMMITTEE ON RESUSCITATION FROM MINE GASES

In the report of the Council for 1912 the appointment of a commission on Electrical Shock was announced. This commission completed its work in the fall, preparing a chart and a book of directions for resuscitation from electrical shock, both of which were printed by the *Electrical World* of New York, and distributed free in large quantities to electric-light plants, power houses, factories and other places where electrical currents are in constant use. As a result of the work of this commission, the Council was asked by the director of the Bureau of Mines of the United States Department of Labor to appoint a similar commission on resuscitation from mine gases. The following were appointed on such a commission:

Dr. W. B. Cannon, Chairman, Department of Physiology, Harvard Medical School, Boston.

Dr. S. J. Meltzer, Rockefeller Institute, New York City.

Dr. Yandell Henderson, Department of Physiology, Yale University, New Haven, Conn.

Dr. George W. Crile, Cleveland, Ohio.

Dr. Reid Hunt, Hygienic Laboratory, Washington, D. C.

Dr. Joseph Erlanger, St. Louis.

COMMITTEE ON RAILWAY SANITATION

At the meeting of the Council held October 19, 1912, the following Committee on Railway Sanitation was appointed:

Dr. H. M. Bracken, Chairman, Secretary State Board of Health, St. Paul, Minn.

Dr. A. M. Hume, Owosso, Mich.

Dr. J. N. Hurty, Secretary, State Board of Health, Indianapolis, Ind.

Dr. S. C. Plummer, Chief Surgeon, Rock Island Railway System, Chicago.

Prof. E. O. Jordan, University of Chicago, Chicago.

Dr. Thos. R. Crowder, Superintendent of Sanitation, Pullman Company, Chicago.

Mr. W. L. Park, First Vice-President, Illinois Central R. R., Chicago.

Mr. A. C. Ridgway, Second Vice-President, Rock Island Railroad, Chicago.

At the request of the Council, Surgeon-General Rupert Blue designated Dr. W. C. Rucker, Assistant Surgeon-General of the United States Public Health Service, as a member of the committee.

This committee reported at the Legislative Conference, and the report will appear in THE BULLETIN.

MEDICAL EXPERT TESTIMONY

During the interval between the Council meeting, the chairman, by the authority of the Council, appointed the following Committee on Medical Expert Testimony:

Dr. Harold N. Moyer, Chairman, Chicago.

Dr. Gilbert E. Seaman, Milwaukee, Wis.

Prof. E. R. Keedy, Northwestern University Law School, Chicago.

COMMITTEE ON REVISION OF THE MODEL VITAL STATISTICS LAW

With the authority of the Council the chairman appointed the following committee to revise the model vital statistics law:

Dr. J. N. McCormack, Chairman, Bowling Green, Ky.

Dr. Marshall L. Price, Baltimore, Md.

Dr. W. C. Woodward, Washington, D. C.

Dr. W. R. Batt, American Public Health Association, Harrisburg, Pa.

Mr. E. M. Abbott, American Bar Association.

Dr. Cressy L. Wilbur, Bureau of the Census, Washington, D. C.

The report of this committee will be found among the reports of subcommittees.

STATE LEGISLATION

During the fall and winter legislatures have met in forty-two states. The number of bills bearing on public health matters has probably been unprecedented. As nearly as can be estimated, between 700 and 800 bills on health or related

subjects have been introduced in the different legislatures. At the time of writing this report the legislatures are still in session in Connecticut, Illinois, Massachusetts, Pennsylvania and Wisconsin. Complete reports have not yet been received from all of the others. Without attempting to present any definite synopsis of legislation as in previous years, it will only be said that the Council has endeavored to keep informed regarding the legislative situation in the different states and to cooperate, to the best of its ability, with the state committees and to furnish them all the information and assistance possible. The legislative work of the organization would be greatly facilitated if each state association would establish a standing committee on legislation or on legislation and public health, and would provide for one member in the capital city of the state, who could be furnished with the equipment necessary to keep him informed constantly regarding the legislative situation in his state. It is at present extremely difficult to learn in many cases what bills have been introduced, or even what laws have been enacted.

NATIONAL HEALTH LEGISLATION

A considerable portion of the time and efforts of the Council during the past year has been devoted to an effort to bring about harmonious cooperation between the Council itself, the special Committee on National Health Organization, established by the House of Delegates at the 1910 session at St. Louis, and the Committee of One Hundred, in order that a definite program might be adopted by which concerted action for national health legislation might be possible. Prof. Irving Fisher, Chairman of the Committee of One Hundred, arranged a conference of the executive committee of the Committee of One Hundred, and the special committee of the American Medical Association at Washington on December 9. On December 5, Dr. W. C. Woodward moved that a special meeting of the Council be called on December 9, to meet with the other two bodies. As the time was too short, the Council declined to meet at that time, but authorized the chairman to arrange for a conference at the earliest possible date. Accordingly, a special meeting of the Council was called at Philadelphia on January 4, to which were invited the members of the special committee, with the understanding that the expense of attending the meeting would be borne by the Council. This meeting was attended by four of the members of the Council and by Drs. S. G. Dixon, W. H. Welch, H. P. Walcott of the special committee. After spending the day in discussion and conference, the Council authorized the chairman to correspond with Professor Fisher and Dr. Murphy and to arrange for a joint conference in Washington of the three committees at the expense of the Council. After considerable correspondence a joint letter signed by Dr. Murphy and Dr. Favill, was sent to the members of the Council and of the special committee and to Professor Fisher, calling a joint meeting in Washington, D. C., on Monday, May 5, 1913. To this meeting were invited President Jacobi, President-Elect Witherspoon, General Manager and Editor Simmons, Secretary Craig of the American Medical Association, Surgeon-General Rupert Blue of the Public Health Service, Senators Owen and Ransdell, and Representative Foster. Two days' conference resulted in the appointment of a special committee to call on President Wilson and present the importance of a national Department of Health and of a White House conference on vital resources, and of a committee to confer with Senator Owen with a view to revising the present Senate Bill No. 1. The conference also endorsed the following program drafted by Prof. Irving Fisher and unanimously adopted after exhaustive discussion:

First: Appoint a committee to see President Wilson, to-morrow, May 6, at 10:45, and communicate to him the results of our conference and request him to decide upon an administration policy concerning public health legislation.

Second: Recommend to President Wilson that he definitely advocate the establishment of a Department of Health.

Third: That he cooperate with Representative Foster in attempting to secure a Committee on Public Health in the House of Representatives during the present special session.

Fourth: That he call a White House conference on Public Health next fall somewhat similar to the Governors' Conference on Conservation called by President Roosevelt. The object of this conference is to promote the success of the President's policies and if necessary to aid in framing these policies.

Fifth: That at the next regular session the President should send a special message favoring public health legislation or else emphasize it in his regular annual message.

Sixth: That the President should select for the first assistant Secretary of the Treasury someone interested in public health.

Seventh: That in the next regular session we should support the President in securing such public health legislation as he decides to recommend.

The present situation is most gratifying, in that all the officers and committees representing the association have agreed on a definite program of procedure and have also made provision for the revision of the present Senate Bill No. 1.

The second portion of the report of the Council which consists of the reports of its various subcommittees is deserving of careful consideration. The Council wishes to express its indebtedness to the members of the various committees which have worked earnestly and faithfully during the past year.

Respectfully submitted. HENRY B. FAVILL, Chairman.
W. C. WOODWARD,
J. N. MCCORMACK,
W. B. CANNON,
H. M. BRACKEN,
FREDERICK R. GREEN, Secretary.

REPORTS OF SUBCOMMITTEES OF THE COUNCIL ON HEALTH AND PUBLIC INSTRUCTION

REPORT OF THE COMMITTEE ON PREVENTION OF BLINDNESS

To the Council on Health and Public Instruction:

Your committee begs leave to report that under its direction there has been prepared, during the past year, a sketch of a lecture on ophthalmia neonatorum, together with a grouping of established data that can be used as reference material. This is illustrated by a series of 162 lantern slides covering ophthalmia neonatorum and another series covering the entire subject, as far as developed, of the prevention of blindness. A number of sets of these will be prepared by the Council on Health and Public Instruction to be loaned for public lectures before Medical Societies, popular audiences or wherever they can accomplish the largest educative results. (Appendix A.*)

Your committee, after advising with ophthalmologists, obstetricians and others, has also prepared, as directed, a tentative model law for the control of ophthalmia neonatorum. This tentative law has been revised by the attorney of the Association in order that the phraseology may be such as would meet the requirements of the law. It will be submitted to the Section on Ophthalmology and to the Association for further action at this meeting, when, with such modifications as may be suggested, if approved, it will serve as a model wherever legislation on this subject may be enacted. It is of course impossible that any single law would meet the conditions and requirements of all states and it must therefore be submitted to local legal counsel before being enacted into a law of each state.

A summary of that law is also annexed herewith. (Appendix B.)

The necessity of a uniform law is evident from the fragmentary and imperfect legislation already existing in many other states.

The control of ophthalmia neonatorum is of course closely related to the question of midwives. The following summary of the existing condition in the various states, obtained through the courtesy of Miss Carolyn C. Van Blarcom, Secretary of the New York Association for the Blind, is of value. (Appendix C.) Prepared by Dr. J. Clifton Edgar.

ACCIDENTS

As an indication of the proportionate number of eye accidents the following record was obtained through the efforts of the Committee on the Prevention of Blindness of the New York Association for the Blind. (Appendix E.)

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* Omitted here, but included in the reprint of the minutes.

The importance of this work will be more fully appreciated when it is learned from a statement made by Mr. C. W. Price, assistant to the Wisconsin Industrial Commission, that the average number of eye injuries in the McCormick Works was about fifty a month and these were reduced immediately after the use of spectacles to four in a month, and of these only one of the four caused any loss of time. It was also learned that the American Steel Foundries by using adequate protection for the eyes of its employees have reduced eye injuries about 85 per cent. The necessity is therefore very evident of some method by which an exact record can be maintained and references of all eye injuries be reported to public institutions. This can be readily done by means of a blank, and it might be used by physicians. (Appendix F.) If such records were filed at some central point so that they might be readily accessible they would be not only of great statistical value but they would so demonstrate the need of protective measures, where they were employed, that their use must of necessity become universal.

TRACHOMA

Concerning trachoma, Dr. John Green, Jr., sent a brief but important report. (Appendix G.) The Federal Government is prepared to cooperate with all other medical or philanthropic bodies in controlling what has already grown to be a menace to sight in many parts of the United States.

COOPERATION WITH NEW YORK COMMITTEE

The Committee for the Prevention of Blindness of the New York Association for the Blind has worked in cooperation with the Committee on the Prevention of Blindness of the American Medical Association and a brief report will indicate the amount of work which has already been accomplished in states outside of New York. It is an index of the development and growth of the entire movement. (Appendix D.)

WOOD ALCOHOL

The importance of protecting the public from the dangers of wood alcohol has been emphasized through the pages of THE JOURNAL of the American Medical Association by a special article on the subject by Dr. Casey A. Wood which has been further emphasized by editorial comment. The Committee on the Prevention of Blindness of the New York Association for the Blind and the State Factory Employers' Commission have together formulated a bill which has been introduced into the legislature of New York and it is expected will be passed. (Appendix H.)

The resolutions adopted by that Committee are also important and valuable. (Appendix I.)

TOXIC AMBLYOPIAS

Concerning toxic amblyopias it has been suggested by Dr. G. E. de Schweinitz that it would be well if attention were called to the blindness of arsenic compounds. The increasing use of these preparations makes it a timely one, and it is hoped that during the coming year a report may be obtained upon this subject.

The necessity of a more completely organized movement for the prevention of blindness has been suggested by the Chairman of the Executive Committee of the Section on Ophthalmology, who submits a very complete plan which forms part of this report. (Appendix J.)

Preventive work has grown with such rapidity and its necessity has became so evident that a further organization of the movement is greatly to be desired and a more complete system of cooperation with all existing bodies having like aims.

Respectfully submitted,

F. PARK LEWIS, Chairman,
J. CLIFTON EDGAR,
F. F. WESBROOK,
GEORGE E. DE SCHWEINITZ,
THOMAS S. HOLLOWAY,
CASEY A. WOOD,
JOHN GREEN, JR.,
CLARENCE LOEB,
WM. CAMPBELL POSEY,
MARK D. STEVENSON.

APPENDIX B.—A BILL FOR AN ACT ENTITLED AN ACT FOR THE PREVENTION OF BLINDNESS FROM OPHTHALMIA NEONATORUM; DEFINING OPHTHALMIA NEONATORUM; DESIGNATING CERTAIN POWERS AND DUTIES AND OTHERWISE PROVIDING FOR THE ENFORCEMENT OF THIS ACT

Section 1.—Ophthalmia neonatorum defined. Any condition of the eye, or eyes, of any infant shall, independent of the nature of the infection, be known as ophthalmia neonatorum, in which there is any inflammation, swelling or redness in either one or both eyes of any such infant, either apart from or together with, any unnatural discharge from the eye, or eyes, of any such infant at any time within two weeks after the birth of such infant.

Sec. 2.—Duties of physicians, midwives, etc.—It shall be the duty of any physician, surgeon, obstetrician, midwife, nurse, maternity home or hospital of any nature, parent, relative, and any person or persons attendant upon, or assisting in any way whatsoever, any woman at childbirth, or attendant upon, or assisting in any way whatsoever any infant, or the mother of any infant, at any time within two weeks after childbirth, knowing the condition hereinabove defined, to exist, and within six hours thereafter, to report such fact, as the State Board of Health shall direct, to the local health officer of the city, town, village, or whatever other political division there may be, within which the mother of any such infant may reside.

Sec. 3.—Duties of the local health officer.—

It shall be the duty of the local health officer,

1. To investigate each case as filed with him in pursuance with this law, and any other such case as may come to his attention.

2. To report all cases of ophthalmia neonatorum and the result of all such investigations as he shall make, as the State Board of Health shall direct.

3. To conform to such other rules and regulations as the State Board of Health shall promulgate for his further guidance.

Sec. 4.—Duties of the State Board of Health.—

It shall be the duty of the State Board of Health

1. To enforce the provisions of this act.

2. To promulgate such rules and regulations as shall, under this act, be necessary for the purpose of this act, and such as the State Board of Health may deem necessary for the further and proper guidance of local health officers, etc.

3. To provide for the gratuitous distribution of a scientific prophylactic for ophthalmia neonatorum, together with proper directions for the use and administration thereof, to all physicians, midwives and the like, as may be engaged in the practice of obstetrics or assisting at childbirth.

4. To print and publish such further advice and information concerning the dangers of ophthalmia neonatorum and the necessity for prompt and effective treatment thereof, as may be deemed fit.

5. To furnish copies of this law to all physicians, midwives and the like, as may be engaged in the practice of obstetrics or assisting at childbirth.

6. To keep a proper record of any and all cases of ophthalmia neonatorum as shall be filed in their office in pursuance with this law, and as may come to their attention in any way, and to constitute such records a part of the annual report to the governor and the legislature.

7. To report any and all violations of this act as may come to their attention to the prosecuting attorney of the district wherein said misdemeanor may have been committed, and to assist said official in any way possible, such as by securing necessary evidence, etc.

Sec. 5.—Duties of maternity homes, physicians, etc.

It shall be the duty of all maternity homes and any and all hospitals, etc., to maintain such records of cases of ophthalmia neonatorum as the State Board of Health shall direct. It shall be the duty of any and all physicians, midwives and the like, in addition to reporting as hereinbefore enacted, to advise, prescribe and employ, in the treatment of all cases of

ophthalmia neonatorum, such prophylactic as the State Board of Health shall direct.

Sec. 6.—Violation of act a misdemeanor; knowledge—

The failure of any and all physicians, midwives, etc., as hereinabove set forth, to report as herein prescribed, or the failure of any hospital to record, as hereinbefore enacted, or the failure of any physician, midwife and the like, to treat as the State Board of Health shall have directed, any and all cases of ophthalmia neonatorum, as herein prescribed, and, under such circumstances as are herewith set forth, or any or all of such violations, as the case may be, shall constitute a misdemeanor under this act. Any person accused of a misdemeanor under this act shall, upon conviction thereof, be fined, for the first offense, not to exceed $50.00; for a second offense, not to exceed $100.00, and for a third offense, and thereafter, not to exceed $200.00 for each violation; and, if the accused be a physician, midwife or the like, such person shall, in the discretion of the court, suffer a revocation of license or both fine and revocation, as the court may see fit; and if the accused be a maternity home or the like, duly incorporated under the laws of the state, the court may, in its discretion, order a revocation of its charter; and any collusion between any official and any person, or between any others herein named, to misstate or conceal any facts which, under this act, are essential to report correctly, shall likewise constitute a misdemeanor, and the accused shall, upon a conviction, suffer a penalty such as is hereinabove enacted. The act of the agent in the scope of his employment shall be deemed the act of the principal. Any and all cases of ophthalmia neonatorum, or the resultant blindness therefrom, on which the accused may have been in attendance, as hereinbefore set forth, shall be taken as prima facie evidence of knowledge on the part of the accused. It shall be the duty of the state's attorney, for the proper district, to prosecute for all misdemeanors as herein prescribed.

Sec. 7.—Appropriation.

The sum of $..... shall be annually appropriated for the use of the State Board of Health in enforcing and carrying out the provisions of this act. Any and all necessary and legitimate expenses that may be incurred in prosecuting a case under this act, shall, upon a proper showing, be met by the State Board of Health out of this appropriation. In addition thereto, all fines and penalties recovered hereunder, shall be paid into the state treasury and shall constitute a special fund for the uses and purposes of the State Board of Health as herein enacted.

Sec. 8.—Emergency.

An emergency existing, this act shall take effect upon its passage, as by law prescribed.

Sec. 9.—Repealing.

All acts and parts of acts in conflict herewith are hereby repealed.

APPENDIX C.

Information relating to work for prevention of blindness from ophthalmia neonatorum since June 1, 1912:

Midwives are allowed by law to practice unrestricted in the twelve states of Alabama, Arizona, Arkansas, Florida, Georgia, Idaho, Kentucky, Maine, South Carolina, Tennessee, Virginia and West Virginia.

There are no laws relating in any way to the training, registration or practice of midwives in the fifteen states of California, Delaware, Massachusetts, Michigan, Mississippi, Nebraska, New Hampshire, New Mexico, New York, North Dakota, Oklahoma, Oregon, Rhode Island, South Dakota and Vermont.

In the twenty-two states where there are laws relating to midwives, fifteen require that they shall be licensed and that they shall pass an examination before being licensed to practice, while nine restrict the practice of midwives to attendance on normal cases. In no state is there provision for supervision of midwives in their practice, and although this is carried on by two or three local boards of health, it is evidently not wholly satisfactory.

In six states it is required that midwives shall be trained, this training in two states amounting to attendance at five cases of birth, and in the other four training in a recognized school. But in no one of the latter states do there exist any such standardized schools. So far as we are able to learn, the only real training schools for midwives in this country are the one connected with Bellevue Hospital, established in 1911 as a result of the efforts of the Committee on Prevention of Blindness, and the Philadelphia City Hospital, where women are received for midwifery training on the recommendation of the Board of Medical Examiners. (This material has just been tabulated and is up to date.)

According to figures very recently received from state and city health officials throughout the country, approximately 34 per cent. of all births are reported by midwives. This figure, although made up from the official reports, is only approximate, for many of the replies received from both state and city health officers stated frankly that they had no idea of the proportion of births attended by midwives. Although some of them believed it to be very large, they could give no figure. Others volunteered the information that midwives generally reported births much more satisfactorily than physicians.

Figures collected by the committee from schools for the blind throughout the country show that in 1912, out of a total of 2,327 pupils in twenty-one schools, 684, or 29.2 per cent., of the pupils were needlessly blind from ophthalmia neonatorum; eighty-eight of the 386 children admitted for the first time during the present school year are blind from ophthalmia neonatorum, thus showing that the percentage of needless blindness from this cause in schools for the blind continues about the same this year as for preceding years:

1912—88 out of 386 new admissions = 22.7% blind from O. N.
1911—88 out of 415 new admissions = 21.2% blind from O. N.
1910—84 out of 351 new admissions = 23.9% blind from O. N.

In this connection it should be noted that the figures showing the annual admissions of cases of ophthalmia neonatorum to schools for the blind are of little value as indicating the results of work which is being done for the suppression of ophthalmia neonatorum. Children are not usually admitted to schools for the blind until they are 7 or 8 years of age, whereas active work for the prevention of blindness has only been carried on during the past four or five years. While we could scarcely look for results in the admissions to these schools before 1916, it is believed that owing to the educational work which is being done by this committee and other organizations, ophthalmia neonatorum is already diminishing throughout the country.

Of 108 cases of ophthalmia neonatorum reported to this committee by doctors in the various eye clinics in New York City, it was found on investigation that sixty-two were attended by physicians, forty-three by midwives and three were emergency cases attended by neighbors. In fourteen of the sixty-two cases attended by physicians a prophylactic against ophthalmia neonatorum was used at birth and by eleven of the forty-three midwives. Out of eleven cases in which injury resulted, six lost one eye, two eyes were scarred, while three infants became totally blind. The cases of total blindness all occurred in the practice of physicians, while of the remaining eight, six were physicians' cases and two midwives'. In two cases where physicians undertook to treat the patients in their homes, the only care given being left to the mother, one eye was lost in one case and both eyes in the other.

Wisconsin in this year's meeting of the legislature is working for an appropriation of $3,000 for the free distribution of O. N. prophylactic outfits. This will make the seventh state which is carrying on such work.

Model bill for prevention of blindness from ophthalmia neonatorum, prepared by American Medical Association Committee on Prevention of Blindness.

Institutions and organizations interested for the first time in obtaining legislation relating to prevention of blindness from ophthalmia neonatorum. This interest was awakened by correspondence with this committee:

State University of Iowa, Iowa City.

State School for the Deaf and the Blind, Gooding, Idaho.
School for the Blind, Kansas City, Kan.
School for the Blind, Fort Gibson, Okla.
Oregon Library Commission, Salem, Ore.

It is much to be regretted that the reporting law in operation in Boston and some other cities is not enforced in New York City, where in 1912 only 173 cases of "babies' sore eyes" were reported to the City Department of Health.

APPENDIX D.

Report of work done by New York committee.

Appended are the names of the states and the kind of information asked for. The summary shows that the total number of applications from states outside of New York was sixty-six, these coming from twenty-seven different states and from Canada, South America and Australia.

These figures cannot be taken as an index of the amount of time expended by this committee for the promotion of preventive work outside of New York State. For example, it is sometimes necessary to entirely suspend the regular work of the committee for an entire day or for several days to collect material from the committee's files to be used in responding to a single request.

The information sought by workers in other states is mainly for statistics; suggestions in regard to legislation; for information to be used in preparing magazine articles or addresses; assistance in regard to exhibits and lantern-slides; and suggestions and information in connection with all the various subjects bearing on preventive work, either educational or to give practical effect to desired reforms.

In addition to the correspondence involved, there are also many visits received at the office from persons seeking information in behalf of prevention of blindness work in their respective states, or those desiring to inspect for selection the large number of photographs and lantern-slides which have been collected by this committee. You will readily understand that such visits consume much time which would otherwise be devoted to New York State work, for some member of the office staff must be placed at the disposal of the visitor during his or her stay in order that the greatest possible assistance be given.

Much of this interest has been evoked by the publications and statistical reports of this committee, which have been asked for and have been sent during the past five years into every state in the Union.

Because of our sincere desire to forward any work which tends to save from unnecessary blindness any human being, whether in this or some other state, we always comply with such requests as I have mentioned with the greatest care and willingness. We find, however, that our own work in this state, for which the committee was organized, is greatly retarded by so doing, because of the fact that our office staff is insufficient to do both state and national work satisfactorily. We are obliged again and again to postpone our own investigations, and the preparation of our own publications, etc., to meet these urgent demands. At the same time we are conscious that we are not doing the national work effectively. Time and again it would have been desirable to send some one to a near or a distant state to help the workers there, but this, of course, has been impossible. For those cases where legislative help has been asked for this would have been especially desirable.

In conclusion, I would respectfully ask that some relief be afforded this committee in connection with the work it is now doing for prevention of blindness outside of New York State.

REQUESTS FOR ASSISTANCE OR INFORMATION FROM STATES OUTSIDE OF NEW YORK AND FOREIGN COUNTRIES TO COMMITTEE ON PREVENTION OF BLINDNESS, DURING THE THREE YEARS ENDING APRIL 28, 1913

Alabama, California, District of Columbia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Missouri, New Jersey, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Wisconsin, Australia, Canada, South America.

APPENDIX E.

The records of patients suffering from eye accidents were copied from the admission books of the Manhattan Eye, Ear and Throat Hospital and the New York Ophthalmic and Aural Institute, covering the period from January, 1910, through February, 1911. From the former seventy-six records were taken and from the latter 359. The following statistics from the last reports of these institutions and from two other reports will give some idea of the extent of eye accidents:

Hospital	Total number of new patients in Eye Department, excepting refractive cases.	Eye Accident cases.	Per cent.
Manhattan Eye, Ear and Throat Hospital, Oct. 1, 1908, to Oct. 1, 1909	15,002	2,704	17
New York Ophthalmic and Aural Institute Oct. 1, 1909, to Oct. 1, 1910	6,026	446	7
New York Eye and Ear Infirmary Sept. 30, 1909, to Sept. 30, 1910	15,844	2,633	16
Harlem Eye, Ear and Throat Hospital Oct. 1, 1909, to Oct. 1, 1910	3,505	577	16

In addition to these records, at your request, I copied the causes of blindness in 1,000 cases from the census of the New York Association for the Blind. The result was as follows:

Cause	Number of cases	Per cent.
Congenital	52	5.2
Accidents	159	15.9
Diseases	789	78.9
	1000	100.0

APPENDIX F.

Record of cases with special notes on accidents and injuries, trachoma, ophthalmia neonatorum and the causes of blindness, together with the usual data.

Case No. Place of Examination. Date. Name or initials of patient Sex. Age. Residence of patient. Diagnosis. R.V. L.V.

ACCIDENT OR INJURY

Has report of this case been made elsewhere? Where?
Previous treatment? How did accident occur?
Could it have been avoided? How?
Present condition. Prognosis.

TRACHOMA

Present condition. How long present?
Where probably originated? Others in family infected?
Cornea involved. Prognosis as to time and vision.

OPHTHALMIA NEONATORUM

How soon after birth infection appeared?
Mother attended by doctor or midwife?
Name of attendant. What, if any, prophylactic was used?
Clear cornea? Corneal ulcer? Scar?
Condition of eyes when first seen. R. L.
Condition of eyes when discharged. R. L.
Duration of treatment. Micro-organism determined?
Prognosis.

BLINDNESS

Absolute.—No light perception.
Practical.—Cannot count fingers further than 1 meter.
Relative.—Vision greater than 1 meter but because of narrow field or other reasons cannot guide oneself.
Cause of blindness. Present condition.
Could blindness have been prevented? How?

CONDITIONS OF ILLUMINATION

Daylight.—Number and amount of window space in relation to patient. Position.

Gas Flame.—Number and amount of window space in relation to patient. Position.

Electricity.—Candle power and current cycles and position in relation to patient.

Mercury vapor light.—Candle power and position in relation to patient.

OPERATIONS

Cataract	R.		Result R.
	L.		Result L.
Glaucoma	R.	T.	Result R.
	L.	T.	Result L.
Strabismus	R.	Degree	Result R.
	L.	Degree	Result L.
Other operations	R.		Result R.
	L.		Result L.

Remarks

Signed

——————M.D.

——————Street,

——————State.

APPENDIX G

PREVALENCE OF TRACHOMA IN THE UNITED STATES

It is impossible at the present time to arrive at a complete knowledge of the prevalence of trachoma in the United States, for the reason that as yet no general survey of the incidence of this disease has been undertaken in this country. Even if such general investigation were to be undertaken, it is extremely unlikely that it would yield accurate results. And the prime obstacle in the path of the investigation would be the fact that, with rare exceptions, boards of health, whether town, city or state, have failed to appreciate that trachoma is a dangerous contagious disease, and hence have not included it in the list of reportable maladies.

It is the opinion of J. W. Schereschewsky[1] that "in the United States trachoma has not as yet become general in its distribution. Owing to the great tide of immigration to this country, we find it rather frequent along the Atlantic Seaboard. Owing to the westward migratory movements, we also find trachoma prevalent to a certain degree among the inhabitants of the West. It has also been endemic for a number of years in certain restricted areas of Southern Illinois and in the mountains of Kentucky and West Virginia."

S. H. Brown[2] states that in New York City, prior to 1897, trachoma constituted 4 per cent. in over half a million subjects with contagious diseases; three years later (trachoma having in the meantime been classified as a "dangerous contagious" disease by the immigration authorities, thus compelling the deportation of aliens so afflicted) only a little over 2 per cent. were seen in 100,000 cases of contagious diseases. Although New York City probably has the greatest number of cases of any one focus, the disease is on the decline when the increase in population is taken into account. The New York Municipal Bureau of Health recorded something like 10,435 cases of trachoma in 1908, while in 1909 the number reported was 7,090. Additional evidence of the decline of trachoma in New York City is found from the results of school inspection: in 1902 20 per cent. of schoolchildren had trachoma; in 1908 70 per cent., and in 1910 only 3 per cent. were so affected.

Information from Baltimore, Cleveland and Philadelphia indicates that the disease in these cities is on the decline. In Toledo and Akron, Ohio, it is on the increase. In Dayton, Ohio, it is said to be assuming alarming proportions. In Chicago the disease is stationary.

It should be noted that the increase is especially noticeable in smaller towns and cities which do not seem to be able to put in force the procedures that would insure prompt eradication. Figures from the Wills Eye Hospital clearly indicate the decrease of the disease. In 1872 the percentage was 5.9; in 1908, 0.7 per cent. Not only has the incidence of the disease diminished, but it has, to a great extent, lost its virulence.

The disease is very prevalent in Southern Illinois and to some extent throughout the rest of the state.[3]

Northern Arkansas is seriously infected. The following excerpt from the Twenty-First Biennial Report of the Arkansas School for the Blind indicates how serious is the menace to sight from trachoma in the state:

"The condition in Arkansas shows a larger proportion of pupils in school with trachoma than from all other causes, and a larger percentage than is shown to exist in other states. The northeastern and northwestern portions of the state constitute the principal areas of infection. The eastern and southern portions are almost entirely free as far as shown by our records. In the Arkansas school the number of pupils enrolled in 1908-10 was 199 white and twenty-eight colored. The number of cases of trachoma and blindness caused from trachoma was 115."

The Committee on Trachoma Investigation of the Missouri State Medical Association (1912) concludes that there are not less than 10,000 sufferers from trachoma in Missouri.[4]

Dr. J. A. Stucky of Lexington, Ky., who recently made a journey into the heart of the mountain regions of Eastern Kentucky, makes the following report:

"I found that in families where there were children it was an exception to find only one case of diseased eyes. In one instance, seven out of the nine children were unable to attend school on account of trachoma. Such cases as these are not allowed to attend our schools, and yet in the mountains they are not considered infectious or dangerous, but just 'sore eyes.' A solution to the problem in the mountains is the same as in the state—the question of education. Many of those who need surgical treatment and hospital care have not the financial means to obtain these. The county in which they live contains no institution where they can be cared for without personal expense, and the county treasury contains no funds to provide for even hospital care elsewhere."

Conditions in these mountain regions prompted the United States Public Health Service to send a special investigator (McMullen) in the summer of 1912 to endeavor to secure exact data. His survey, which included seven counties in the mountain regions of Eastern Kentucky, revealed an appalling prevalence of the disease. Of 3,974 individuals selected at random, 500, or 12.5 per cent., were affected; 338 out of 2,796 schoolchildren examined had trachoma (12 per cent.). In Knott, Perry, Leslie and Breathitt counties, out of a total population of 50,000, McMullen estimated that there were 3,400 victims of trachoma. These people are very poor, live crowded in wretched hovels without proper light or ventilation, and have no conception of ordinary rules of sanitation conditions which conspire to disseminate the disease.

White and Treibley[5] estimate that, in Oklahoma, out of a total Indian population of 100,000, about 65,000 are sufferers from trachoma. These authors state that the disease is "very prevalent in Illinois, Missouri, Oklahoma, Arkansas and Texas." Dr. White found that 48 per cent. of the white children in the Pawnee public schools were affected, and his examination in other white schools throughout the state justifies the assertion that from 20 per cent. to 40 per cent. of all the white schoolchildren of Oklahoma are trachomatous.

The following remedial measures are suggested:

1. Trachoma should be made a reportable disease to every local board of health.

2. Local boards of health and health commissioners should regard trachoma with the same concern that they regard scarlet fever, diphtheria and typhoid fever. Trachoma may not be dangerous to life, but it is dangerous to that which is almost as precious as life itself—eyesight. The failure to recognize trachoma as a serious contagious disease is reprehensible.

3. State boards of health should require a tabulation of all fresh cases of trachoma.

4. The federal government should provide measures for the investigation of trachoma throughout the United States, and where it is found to exist measures should be taken in conjunction with the local authorities for its control.

1. Schereschewsky, J. W.: Trachoma, Clark and Schereschewsky, Pub. Health. Serv., 1907.
2. Brown, S. H.: Trachoma, New York Med. Jour., April 1, 1911, p. 608.
3. Wilder: Ophthal. Rec., November, 1901.
4. Jour. Missouri Med. Assn., July, 1912.
5. White and Treibley: Ophthal. Rec., May 1, 1912.

5. Boards of education must be roused to a more intelligent attitude toward this disease. The opposition to medical inspection in the public schools must be abandoned if the eyes and eyesight of the coming generation are to be safeguarded.

6. Education of the people in the true meaning and possible danger of this disease by talks with the family physician, public lectures by oculists, the distribution of pamphlets and books issued by local public libraries should be insisted on.

7. Special stress should be laid on the danger of contagion and the familiar character of the disease. Epidemics in institutions should be guarded against by periodic ocular inspection of all the inmates.

8. In localities where trachoma is endemic, the hospitals should supply a few beds in a small ward for trachoma patients who require intensive treatment or operation.

9. Practitioners in the country should equip themselves to recognize incipient trachoma and to apply the simpler medical and surgical measures for its relief. Whenever possible, the patient, even in the incipient stage, should be referred to an oculist.

10. Trachoma with complications, e. g., pannus, ulcer, entropion, iritis, etc., should be treated by an oculist.

APPENDIX H. AN ACT TO AMEND THE PUBLIC HEALTH LAW IN RELATION TO THE SALE OF WOOD ALCOHOL

The people of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1, Chapter 49, of the laws of 1909, entitled, "An act in relation to the public health, constituting Chapter 45 of the Consolidated Laws, is hereby amended by inserting therein, after Section 318B, to read as follows:

"Sale of wood alcohol. No person shall sell any wood alcohol, nor any fluid containing wood alcohol, unless bottle, vessel or other container in which the same is sold or transported shall bear a label containing the following words conspicuously printed in red ink:

"POISON
"WOOD ALCOHOL

"Do not use except where there is sufficient ventilation.

"Sec. 2. This act shall take effect Oct. 1, 1913."

APPENDIX I. RESOLUTIONS ADOPTED

WHEREAS, There occur annually a number of cases of death and blindness in the State of New York as the result of drinking and inhaling the fumes of wood alcohol; and

WHEREAS, Although wood alcohol is required by the New York state pharmacy law to be labeled poison, in its refined form and under the name of Columbian spirits, it is generally sold by druggists without such label, and wood alcohol is sold by painters and grocers in containers bearing either no label at all or a misleading label; and

WHEREAS, No measures have been taken to require adequate ventilation for the protection of the workmen against the danger of inhaling the fumes of wood alcohol; therefore, be it

Resolved, That this committee endeavor to secure measures which shall provide that every container of wood alcohol, under any name, shall be labeled poison, and that adequate ventilation shall be required in all industries in which the fumes of wood alcohol constitute a menace to the sight and life of workmen; and be it also

Resolved, That educational work be undertaken among tradesmen and public generally; and that cooperation be sought with other organizations having the same purpose in view, to the end that definite measures of reform may be secured to correct the evils connected with the manufacture, sale and use of wood alcohol.

APPENDIX J. PLAN FOR THE FORMATION OF STATE SOCIETIES FOR THE CONSERVATION OF VISION

(Submitted by Dr. William C. Posey.)

The scheme comprises the formation of *state societies.*

An Ophthalmological Section in connection with the State Medical Society in every state of the Union.

The appointment by the president of each state society of ten ophthalmologists from the society, who shall constitute a *State Commission for the Conservation of Vision.*

These ten ophthalmologists shall add to their number *ten lay members*, who shall be chosen with a view to the representation of interests allied to the work of conserving vision, i. e., state and municipal institutions for the blind, manufacturing concerns, architects, educators, philanthropists, artificial lighting corporations, etc.

When feasible, this commission shall make the chief officer of the health department of the state its honorary chairman, thereby working in touch and in harmony with that department of the commonwealth.

This commission shall have oversight over all matters pertaining to vision in each state; shall suggest laws for the prevention and treatment of all forms of ocular diseases; shall inquire into the proper lighting of public buildings, etc.; into the character of the printing, etc., of all text-books used in public schools; shall suggest proper standards for the examination of the eyes of all public servants in whom sharp vision is a requisite; in fine, shall actively engage in all phases of the vast problem of the conservation of vision in its broadest sense.

To give publicity to its work and to gain the cooperation and support of all the ophthalmologists within the state, it shall create a State Society for the Conservation of Vision, with annual dues of $1, payable to a member of the commission, its treasurer, chosen by the commission from their number. Other financial support shall be received from the state, from the state medical society and from private contribution. The membership of this society shall be unlimited, and it shall be the aim of the commission to extend its numbers as far as possible among the laity.

The proceedings of the commission and its aims should be given publicity in the state medical journal, while the State Department of Health should issue whatever bulletins may be necessary to call attention of the profession at large and of the public to the work in hand. Supplemental tracts, brochures, etc., should be issued from time to time at the expense of the society.

The commission shall provide for the proper presentation of the work by lectures and demonstrations, both before medical societies, other scientific bodies and the public at large, and shall endeavor to demonstrate by suitable illustrations and charts the dangers of various ocular diseases and the best means to prevent them.

The National Governing Body

In order that the work in the various states may be brought into some kind of relationship and to secure some form of cooperation between the various societies, some kind of a general governing board seems desirable, and as the commissions in the various states are part of their respective state societies, it is suggested that this board should be appointed by and be an integral part of the Ophthalmic Section of the American Medical Association, the representative and national body of eye surgeons.

It is suggested, therefore, that this governing body shall consist primarily of ten ophthalmic surgeons, who shall be appointed annually by the executive committee of the Section on Ophthalmology. In addition to these ten members appointed at large, the national governing board shall comprise the chairmen and secretaries of all the state commissions, and these ophthalmic members shall have the power to add to their number as many laymen as may seem desirable, their lay members consisting of representatives from scientific societies with allied interests, such, for example, as the National Illuminating Society; from philanthopic bodies, such as the Sage Foundation, and of individuals throughout the country who are particularly interested in the conservation of vision movement.

This national governing board shall direct in a general way the work of the various states and shall cooperate with the national government in all visual activities, as, for example, with the Public Health Service in its trachoma work, both at the portals of the country, as well as among the Indians and elsewhere; with the Department of Commerce and Labor, in fixing standards for the merchant marine and for federal pilots, and with the Interstate Commerce Commission in

determining standpoint to govern the visual tests of railroad employees, etc. This body shall be provided with a paid secretary, and its bulletins shall be issued at the expense of the American Medical Association. Its presiding officer shall be chosen from the ten ophthalmologists appointed from the Section on Ophthalmology of the American Medical Association, at an election in which all the members of the board participate. It shall be the duty of the board to avoid duplication of effort in the various states, to collect statistics regarding the causes and prevention of blindness, etc.

REPORT OF THE COMMITTEE ON VISUAL STANDARDS FOR PILOTS

To the Council on Health and Public Instruction:

The Committee on Visual Standard for Pilots has nothing to report for this year. We have made some effort to insist on proper visual standards for pilots in Pennsylvania, but owing to the political situation, have thought it unwise to proceed further in the matter. As stated in our last report, the visual standards for federal pilots are now fairly satisfactory.

WILLIAM C. POSEY, Chairman.

REPORT OF COMMITTEE ON RESUSCITATION FROM ELECTRIC SHOCK

To the Council on Health and Public Instruction:

The Commission on Resuscitation from Electric Shock has formulated a chart and booklet for the use of workers in power houses and on electric circuits, giving concise directions regarding the treatment of victims of electric shock, both as to methods of artificial respiration and as to care of burns.

The establishment of the Commission on Resuscitation from Electric Shock led to the request by Dr. J. A. Holmes, director of the Bureau of Mines, that the American Medical Association cooperate with that bureau in appointing a Committee on Resuscitation from Mine Gases. The members of the American Medical Association who were on the Commission for Electric Shock—Drs. S. J. Meltzer, G. W. Crile, Y. Henderson and W. B. Cannon—together with Drs. Reid Hunt and J. Erlanger, were appointed to the new committee. In cooperation with members of the Bureau of Mines, the committee has visited mines in the soft and hard coal districts of Pennsylvania, and observed the methods and devices used in mine accidents.

A subcommittee of both appointed bodies has been studying mechanical methods of maintaining respiration artificially, and is about ready to report its findings. The chairman of the subcommittee, Dr. S. J. Meltzer, has prepared a much simplified method of mechanical respiration, which will doubtless be of much service. The final reports of the two appointed bodies will probably be ready shortly.

W. B. CANNON, Chairman.

REPORT OF THE COMMITTEE FOR THE PROTECTION OF MEDICAL RESEARCH

To the Council on Health and Public Instruction:

During the past year a new pamphlet written by Dr. W. W. Keen and entitled "The Influence of Antivisection on Character," has been published. The chairman of the bureau has prepared a brief history of attempts, both in this country and abroad, to secure antivivisection legislation, and has described the methods which have been used here to avoid such restriction of animal experimentation as has hindered medical research in England. This paper, which was read at the February Conference, will be published in THE JOURNAL and reprinted as No. 25 of the series of pamphlets issued by the bureau. Two more pamphlets, one on the relation of animal experimentation to pharmacology, and the other on its relation to surgical operations, will probably complete the series.

The bureau has not been called on to take active part in stating the position of laboratory workers before legislative committees. There has been no general demand for legislation, and the attempts at securing legislation in New York and Pennsylvania seem to have been less effective than before. The public press appears to be readier than before to defend the experimental use of animals and to make known the results of medical research.

W. B. CANNON, Chairman.

REPORT OF COMMITTEE ON COOPERATION WITH THE NATIONAL EDUCATION ASSOCIATION

To the Council on Health and Public Instruction:

Your committee, appointed by the Council on Health and Public Instruction, to confer with the committee selected by the National Education Association, to improve instruction in sanitation, hygiene, physiology and kindred sciences in the public schools, begs to submit the following report:

It was decided at the St. Louis meeting of the committees, in February, 1912, that a year be devoted to the study of the rural school: the building and its environment.

It was also agreed that an effort should be made to devote one evening to medical subjects at the Fiftieth Annual Convention of the National Education Association, to be held in Chicago, July 6-12, 1912.

On Thursday evening, July 11, 1912, the following speakers selected by your committee of the American Medical Association addressed the National Education Association at the Chicago Auditorium (President Jordan, presiding).

Topic: The Public Schools and the Public Health.

1. The Duty of the State in the Medical Inspection of Schools; Results which the Public May Rightfully Expect. Fletcher B. Dresslar, Specialist in School Hygiene, Bureau of Education, Washington, D. C.

2. The Teaching of Hygiene in the Schools: Public. Personal. David Starr Jordan, President of Leland Stanford, Jr., University, California.

3. Sanitation in the Rural Community. Chas. E. North, M.D., New York.

4. Medical Inspection and Medical Freedom. Charles A. L. Reed, M.D., Cincinnati, Ohio.

The Auditorium was packed; every chair was occupied and several hundred seats placed on the platform to accommodate the overflow. The addresses were appreciated, the speakers enthusiastically applauded, and the good accomplished cannot be over-estimated.

On the morning of July 12, in the rooms of President Jordan, Auditorium Hotel, a meeting of the committees convened.

Those present were: David Starr Jordan, P. P. Claxton, A. E. Winship, J. A. Shawan, Frederick R. Green, John M. Dodson and R. W. Corwin.

It was decided at this meeting that we continue the investigation and study of the rural school.

Commissioner Claxton offered the assistance of his office and the government in every way possible to further the interests of this important work.

On Dec. 14, 1912, your committee met in Chicago and discussed the work of the committees, showing satisfactory progress.

On Feb. 3, 1913, Chairman Wood of the Committee of the National Education Association, and Drs. Dodson, Green and Corwin of your committee had an all day's session at the University Club, Chicago, for the purpose of discussing a report to be submitted to the National Council of Education of the National Education Association at Philadelphia on Feb. 25, 1913.

It was decided at this meeting that Dr. John Dodson, and, if possible, Dr. M. J. Rosenau, with the Secretary Dr. Frederick R. Green, represent your committee at the Philadelphia meeting, and with the National Association committee submit a joint report to the National Council of Education of the National Education Association.

At the Philadelphia meeting it was voted by the committees to make an effort to have a medical and sanitary evening at the Fifty-First Annual Convention of the National Education Association to be held in Salt Lake, in July, 1913.

The Educational Council at St. Louis voted to recommend to the Fiftieth Annual Convention of the National Education Association that $1,600 be appropriated for this educational work.

In July, 1912, the American Medical Association voted to equal the sum appropriated by the National Education Association to the amount of $1,600 or less, for the purpose of studying the rural school and its environment.

Dr. Dresslar, who has devoted much time and attention to the subject of rural schools, and collected for the United States Government material for publication, has kindly offered to give the committees the benefit of his experience.

The committees now have workers in the field collecting data which will be of great value in making our final report.

Mr. Miller has been appointed working secretary and has spent a week carefully investigating a school district in Connecticut, and another week in Vermont, going around with a professor who is making a study of rural schools as a part of a careful educational survey of Vermont, authorized by a recent act of legislature. This provided an extraordinarily favorable opportunity for our working secretary to get some valuable material.

It is planned to have Mr. Miller go to districts in Northern New York and make a third study of rural schools there.

This added to material collected by Dr. Dresslar and by members of the committees, along with work planned, will make a valuable final report.

Your committee feels that the past year's work, although far from being complete, has made a most excellent beginning in the task undertaken, and when the report is issued it will be an excellentguide to students of school hygiene and sanitation, and of special interest to those interested in the welfare of schools and of practical worth to school children.

R. W. CORWIN, Chairman.
JOHN M. DODSON,
M. J. ROSENAU.

REPORT OF THE COMMITTEE FOR PUBLIC HEALTH EDUCATION AMONG WOMEN

To the Council on Health and Public Instruction:

Since it is impossible in the space due this report to give details of work done in all places by all members of the Committee for Public Health Education Among Women a more comphehensive understanding of the present status can be gained by a review of the development of the educational idea through the past four years.

This committee was organized in accordance with the following resolution passed unanimously by the House of Delegates June 10, 1909:

Resolved, That the women physician members of the American Medical Association be and they are hereby requested to take the initiative individually in their respective associations in the organization of educational committees to act through women's clubs, mothers' associations and other similar bodies, for the dissemination of accurate information touching these subjects among the people, and that they be requested to submit to the House of Delegates a yearly report of such work, and elect from among their number a committee to take charge of the same.

It was the belief of the committee that the problem of education is one, that both men and women were ready for education and that the work must be done by men and women. At the end of two years results had proved the truth of the first proposition: that both men and women were seeking information in regard to health.

The committee desired a form of organization which would continue to be of service under conditions of growth on the part of both the American Medical Association and the work which it had undertaken; an organization which would at the same time present to the public the medical profession working as a whole for the education of the people.

With this end in view, in June, 1911, Dr. Rosalie Slaughter Morton, at that time the chairman of the central committee, brought to the attention of the Council on Health and Public Instruction the importance of developing the committee work through state medical societies. The following resolutions were passed by the Council.

WHEREAS, The work of the Public Health Education Committee is of great service to the community in lessening disease and stands for the work in which the American Medical Association is interested; it is

Resolved, That this committee be made a standing committee of the Council on Health and Public Instruction to be known as the Committee for Public Health Education Among Women, and that either men or women may be members thereof, and that this committee shall have charge of the dissemination of information concerning the nature and prevention of diseases, among women's clubs, mothers' and teachers' organizations, church and settlement groups, Young Women's Christian Association, etc.

"The Council on Health and Public Instruction recommends that the state and county medical societies cooperate with the Committee for Public Health Education Among Women and make the state chairman of the committee a member of the State Public Health Committee and the county chairman a member of the County Public Health Committee in those counties or states which have standing committees on public health, and in those counties and states in wihch no such committees exist, the Council on Health and Public Instruction request that committees be formed especially to cooperate with the members of the Committee for Public Health Education Among Women. That this resolution be sent by Dr. Frederick R. Green, Secretary of the Council, to the secretary of each state medical society."

The committee has continuously worked toward this end seeking through its representatives in county and state the appointment of committees for public health education in those societies. Early in November, 1912, letters were sent by the central committee to the president and the secretary of each state medical society enclosing copies of these resolutions and asking their cooperation. Throughout the year in letters to many presidents and secretaries of state societies to members of the judicial council in each state as well as to workers under this committee, the plan of organization outlined has been urged as one which will enable the county society to coordinate the work of individuals, the state society to coordinate the work of counties and the central committee to coordinate the work of the states. Each committee will be able to stimulate interest when needed and to reach even the remotest corner of the state. The committee under the state society through its representative on the American Medical Association Committee will receive the benefit of the experience of similar committees in other states and through the same channel will share its own successes.

In response many states have replied that they would work with the state chairman under this committee and have done so cordially.

In its efforts toward organization this committee has never forgotten that it was organized "for the dissemination of accurate information in regard to the nature and prevention of disease." The small town and the rural district as well as the larger cities must be reached.

During the four years of the work of this committee growth from the centers of population toward the villages and farms has been encouraging.

In Minnesota this year through cooperation with the State Library Commission, Dr. L. Arlene Lane, state chairman, placed books on hygiene and sanitation within the reach of all by means of rest-rooms and a traveling library. The chairman for Beltrami County is planning a series of talks to reach each village in his county, the series to be given about midsummer. The chairman of Cottonwood County reports that in Windom, a town having a population of 1,750, a visiting nurse is employed by the churches and people whose duty it is to visit each house in which there is illness for the purpose of giving instruction in hygiene and sanitation.

In other states, also, village and traveling libraries have been used as a means of reaching the people. In one state abbreviated lists were sent to village libraries with suggestions for their use.

In Crawford County, Ohio, Dr. Katherine J. Rayl arranged a county health week which was carried out by the county committee of which she is a member. Speakers were secured from a distance and meetings were held on successive evenings in the largest three towns in the county. These towns have populations of 8,000, 7,000 and 3,000, respectively.

In Brooklyn, N. Y., Dr. Eliza Mosher has had a health play, which was written by a school teacher, presented to settlement house audiences of foreign-born people. Following the play the practical teachings are emphasized in a talk by one of the physicians.

In Connecticut last year talks were given in foreign languages. This year Michigan and Vermont are also reaching people who cannot understand English.

In Iowa this committee under the leadership of the chairman, Dr. Lenna L. Meanes, has perfected the organization of the baby health contest movement. In addition to the examination of children, attention of the parents is called to special points good or bad and personal as well as daily public instruction is given. The opportunity to examine hundreds of children fairly near the normal offers an enviable field for scientific investigation while at the same time interest is aroused in better care of the baby and in the betterment of the race. Following a series of similar contests in Oregon conducted on the Iowa plan a state eugenics society was formed.

As a result of the Iowa contests the central committee is receiving requests for information in regard to feeding and care of infants in a form which can be distributed to farmers' wives. It is the hope of the committee that this work will be guarded by physicians.

In recognition of the educational value of the baby health contest the Iowa State Legislature has appropriated $75,000 for a woman's building for the Iowa state fair, so that there may be a place for the work. Dr. Meanes is to plan that part of the building to be devoted to the babies.

During the past years there has been a growing tendency toward instruction with a definite end in view. This year an improved milk-supply has been secured in many places, and medical inspection of public schools and removal of the public drinking-cup. For details of a notable campaign the report of Dr. Julia G. McNutt for Albany County, N. Y., is interesting.

California, where the League for Medical Freedom formerly held sway, has been given over to constructive legislation for personal and community hygiene. Dr. Eleanor Seymour, state chairman, reached 10,000 women voters in her appeal for active interest in a bill requiring a health certificate before marriage framed by Dr. William F. Snow.

Dr. Charlotte J. Baker, chairman for San Diego County, gave her entire time during the winter in behalf of the more important bills affecting social conditions. Her success is marked by passage, among other bills, of the "Iowa Red Light and Abatement Act."

In Colorado and Nebraska members of this committee worked in support of legislation increasing the efficiency of the State Board of Health. Nebraska secured an appropriation for the establishment of a state board of health laboratory.

In Connecticut this was a year of legislation; many excellent bills were presented in which our chairman had an active interest. Among the number one requiring medical inspection in all schools in the state and nurses even in rural schools.

At the request of the Pennsylvania State Society the state chairman, Dr. Elizabeth Leiper Martin, prepared an open meeting for the women guests at the annual meeting of the state association. The meeting was of such value that she has been asked to prepare another for this year. Open meetings of county societies have been more frequent.

This year has seen a large increase in the number of talks in schools, high schools, normal schools and colleges.

As the work increases in magnitude and the workers in numbers there is increased difficulty in obtaining statistics and workers have less time in which to prepare reports. Last year twenty-five states which gave approximate audiences aggregated 119,637. This year twenty states which gave audiences aggregated 219,121. Both years over forty states reported lectures given so that such figures are manifestly far below the number of persons reached by this form of education.

Special mention is due the splendid work of the subcommittee on medical literature, under the able leadership of Dr. Jane L. Berry of New York City.

The list of books prepared last year was sent by the central committee to each library in the United States not technical and having 5,000 or more volumes, and to the library commissions in each state. At the request of the commissions in two states, and our state chairman in one, the list was sent to all smaller libraries also. Many letters have been received expressing appreciation of the value of this bibliography and stating that libraries are purchasing books endorsed by the committee.

Dr. Berry's committee has this year reviewed articles in current magazines; through some of its members it has reviewed books in foreign languages and has revised and enlarged the list of books published in English. Dr. Berry comments on improvement in the character of books on health subjects written for the laity.

The central committee has carried on the routine office work which included the distribution of 1,950 reports, 4,800 lists of books, 8,135 leaflets explaining to physicians the origin and object of the committee, 8,625 leaflets containing suggestions for health talks, 1,855 maps showing location of county chairmen, 5,903 letters and 2,260 pieces of miscellaneous mail, making a total of 33,528 pieces sent out during the year.

In addition to the routine of the office the central committee prepared an exhibit, showing the extent of the work for the International Congress on Hygiene and Demography in Washington. This exhibit was supervised by members of the committee in Washington and by one member of the central committee who went to Washington for that purpose. During the congress addresses were given by eleven women and seventeen men members of this committee on subjects of general educational interest.

By invitation from the New York State Medical Society a paper was presented by the chairman of the central committee at their annual meeting in April, on "Cooperation of State Medical Association in Public Health Education."

The development of work through the newspapers which was begun by this committee last year was abandoned at the request of the secretary of the Council. The press, however, has been used to advantage by many state chairmen under their own initiative.

In many communities there are organizations of small groups. Some of these are little interested in health subjects, some wish informal talks for their own members, some are too inexperienced to secure speakers for themselves. Many of these clubs do not know the resources of their own communities even. To meet this need this Committee last year planned to compile a list of those speakers both physicians and laymen who are in the employ of state boards of health, societies for the prevention of blindness, tuberculosis, and similar organizations and who are glad to respond to any invitation to speak.

This year at the request of the Chairman of the Public Health Department of the General Federation of Women's Clubs we consented to add a carefully selected list of names of those persons who were in the habit of speaking on health subjects, and had gained a reputation in their own states.

A list as complete as could be made by this committee in a first compilation was prepared and sent in, but was not printed.

The committee has in preparation a series of short papers for girls and women which will be written by Drs. Eliza Mosher, Kate Campbell Mead, Mary Sutton Macy and others. This series is designed to be both readable and accurate, and to give information which is beneficial without being sensational.

This committee has received many requests from both laymen and physicians for papers on various phases of hygiene and sanitation. There are many avenues through which these papers could be distributed widely to advantage. Many of them would be read before audiences of laymen where no physician is available for talks. They would also furnish suggestions to physicians who are willing to talk to their own people, but who are separated from libraries and other sources of information. We have manuscripts of many lectures given by speakers for this committee in New York, Washington and other cities.

We recommend that the Council on Health and Public Instruction print for the use of this committee those papers,

not to exceed twenty in number, which the committee shall select as best suited to meet the general demand.

There are at present over one hundred men and two hundred women, officers and committee workers. Two hundred and seventy-five talks are reported as given to organizations of men exclusively. In two places total numbers of men have exceeded the number of women. In the minds of the public there is no reason why the medical profession should discriminate against men in the matter of education. Practically it has not been found possible to do so.

Since the name represents neither the personnel nor the work of the committee, we recommend also that the words "Among Women" be dropped, and that the name be The Committee for Public Health Education.

We regret the resignation of Dr. Rosalie Slaughter Morton, honorary chairman, whose untiring assistance has been invaluable to the work of the committee.

Those on whom this committee is dependent are so many that it is impossible to call them by name.

We wish to express our appreciation of hearty cooperation on the part of individuals and organizations among the laymen. We wish to thank the large number of physicians, both men and women, who have cordially assisted by giving freely of their time, enthusiasm and money: who by so doing have carried forward the education of the public and made possible this report.

Respectfully submitted,

ELENORA S. EVERHARD, Chairman.
GERTRUDE FELKER, Secretary.

REPORT OF THE COMMITTEE ON THE REVISION OF THE MODEL LAW ON VITAL STATISTICS

To the Council on Health and Public Instruction:

At the outset I must beg to disclaim the honor of being chairman of this committee. The chairman is Dr. J. N. McCormack of Kentucky, a gentleman well and favorably known to the members of the American Medical Association and whom some of the sanitary officials of Kentucky are wont to describe as "the best health officer in the world." Doctor McCormack authorized and directed me to conduct the work of the committee as acting chairman, and as such, therefore, I present this report.

The joint committee was composed of representatives of the American Medical Association (Drs. J. N. McCormack, Chairman, Marshall L. Price and William C. Woodward), American Public Health Association (Dr. Wilmer R. Batt), American Bar Association (Mr. Edwin M. Abbott of Philadelphia), and the Bureau of the Census (Dr. Cressy L. Wilbur). The Conference of Commissioners on Uniform State Laws was not formally represented in the membership of the committee, but its Special Committee on Vital and Penal Statistics, composed of Messrs. Frederick L. Siddons, Chairman, Aldis B. Browne and Walter C. Clephane, all of Washington, took an active interest in a consultative capacity and many valuable suggestions from it have been included in the revised bill. I append a circular relative to the model bill prepared by this committee. Miss Julia C. Lathrop, chief of the Children's Bureau, which is particularly interested in the effective registration of births, also attended the meeting of the committee, and valuable help was received from Mr. E. R. Magie, of the solicitor's office, for the Department of Commerce and Labor, of the Department of Justice. Thanks are due to many state and city registration officials who, in response to a circular letter stating the purpose of the committee and asking for suggestions, either sent valuable recommendations or appeared in person at the meeting of the committee held in Washington on Sept. 21, 1912. Acknowledgment should be made also to the American Public Health Association for including the meeting of this committee in its program. As the meeting came between the session of this association (Sept. 18-20) and the International Congress of Hygiene and Demography in the following week, many sanitary and registration officials were able to attend.

This meeting was a meeting of organization in which the suggestions presented by letter or *viva voce* were considered and a subcommittee of three, Mr. Abbott, chairman, Drs. Woodward and Wilbur, was appointed to make the draft of the revised model bill. The subcommittee held many meetings and labored faithfully to make the revised model bill as much better than the old one as possible. You have the result of their efforts, which has been approved by the full committee, as published by Dr. Green in the pamphlet entitled "Why Should Births and Deaths Be Registered?" and also in the first publication of the United States Children's Bureau. "Birth Registration—An Aid in Protecting the Lives and Rights of Children; Necessity for Extending the Registration Area."

The revised model bill does not differ materially in form, and not at all in principle, from the original. Either would furnish an adequate basis for drafting a bill for an individual state. It was hoped that the revised bill might be made shorter, but the consensus of opinion among registration officials, especially those of states in which the model laws are in practical operation, was that such a law should be very explicit and provide for all the necessary details of registration. For a state in which the length of the bill is objectionable and in which the state board of health may be authorized to make rules and regulations having the force of law, a short bill may be passed, providing for the establishment of a bureau of vital statistics and for the necessary compensation to local registrars, and the details of the model bill can then be adopted as such rules and regulations. This was done in Mississippi, and sections for this purpose are incorporated in the Arkansas bill now pending.

The circulation of this bill and the active interest taken in the extension of adequate registration methods by the council have been of great service in promoting the more efficient registration of vital statistics in the United States. Experience has proved that it may be relied upon to give good results, if proper provision be made for its support, and that the effectiveness of state laws now in existence may be measured by their degree of compliance with its principles. The bill has been introduced in the present sessions of the legislatures of Illinois, Iowa, North Carolina and Tennessee. Copies have been sent to all physicians in West Virginia, although it may not be feasible to pass such a law in that state until after the general reorganization of the Public Health Service. Indeed, this caution should be given, that while vital statistics are fundamental to public health work, their collection cannot be prosecuted successfully until the general sanitary administration of the state is provided for. A weak, half-starved state board of health will fail in the administration of any law, but once fairly equipped for work, a board can strengthen itself and promote the extension of its activities in all directions by no other means more effectively than by enforcing—and utilizing the results of—a good law for the registration of vital statistics.

Respectfully submitted,

CRESSY L. WILBUR, M.D.
Acting Chairman.

At the request of the Chairman of the Council, Dr. Thomas McDavitt, Minnesota, Chairman of the Subcommittee on Uniform Regulation of Membership of the Council on Health and Public Instruction, presented the report of that subcommittee.

REPORT OF THE COMMITTEE ON UNIFORM REGULATION OF MEMBERSHIP

To the Council on Health and Public Instruction:

In the report of the committee made at the annual session for 1912 it was recommended that the entire question "of membership, its method of regulation, and its bearing on the work of the organization" should be referred to a meeting of the secretaries of the constituent state associations, to be called in Chicago some time in the fall of 1912, and that the recommendations contained in the report of the Committee for 1912 be presented to such a meeting for consideration. These

recommendations having been endorsed by the House of Delegates and an appropriation for the expenses of a conference having been made by the Board of Trustees, the conference was called at the headquarters of the American Medical Association on Wednesday, Oct. 23, 1912. The conference was called to order by the Chairman of this Committee, who acted as Chairman of the conference. Thirty-eight constituent state associations were represented, thirty-five state secretaries being present and three states being represented by other officers or members of the state council, delegated to represent their associations. As a preliminary to discussion three papers were presented, one on "The History of Membership in the Americal Medical Association and the State Associations, by Dr. Frederick R. Green," one on "The Difficulties of the Present Situation," and one on "Remedies Proposed by the Committee," by Dr. Thos. McDavitt. Two days were spent in discussion of eight questions presented for consideration. These questions were as follows:

1. Fiscal Year. Should the fiscal year coincide with the calendar year? Should the fiscal year be the same in all county and state societies?

2. Should membership expire automatically at the end of the calendar year, and a new roster for each county and state society be made up with the beginning of each year?

3. When should membership reports from county secretaries to state secretaries be due?

4. Should the dues of new members, joining after the first of the year, be pro rated for the remainder of the year?

5. Should an admission fee be required in addition to the annual dues?

6. Should uniform application blanks, receipt blanks, membership and transfer cards be adopted?

7. Should constituent state associations hold charters from the American Medical Association?

8. Should a uniform plan for the transfer of members be adopted?

At the conclusion of the discussion a committee was appointed to formulate recommendations for the adoption of the conference. The Committee reported as follows:

The Committee on Recommendations herewith submits the following report:

1. We recommend that this conference endorse the plan of having the fiscal year coincide with the calendar year in all parts of the organization. We further recommend that secretaries of all state associations which have not already adopted this provision bring this matter to the attention of their associations and recommend its adoption.

2. We recommend that constituent state associations adopt provisions making dues in county societies payable on January 1 of each year, and requiring county secretaries to report to state secretaries all members in good standing, together with their per capita assessment for the current year not later than March 31. State societies desiring to do so may provide a shorter period.

3. The recommendation regarding the third question under discussion is covered by our recommendation of the second.

4. Regarding the pro-rating of dues, we recommend that this be made optional with each local society.

5. Regarding an admission fee for membership we recommend that this be made optional with local societies.

6. While the committee recognizes, as a general principle, that a uniform system of blanks for county and state societies is desirable as soon as practicable, we recommend further consideration of this question at a later conference.

7. We recommend that the House of Delegates of the American Medical Association be asked to consider the advisability of issuing charters to constituent state associations.

8. We recognize the desirability and advantage of a uniform method of transfer, but this system cannot be established until there has been developed a greater uniformity in other details of organization. We therefore recommend that this question be made the subject of discussion at a future conference.

9. The committee recognizes the value of this conference to the state association secretaries, and to the purposes of organization. It therefore recommends that future conferences of this character be held.

E. J. GOODWIN, Chairman,
WILFRID HAUGHEY,
PERRY BROMBERG,
WILLIAM S. GARDNER,
FREDERICK R. GREEN.

The recommendations adopted by the conference cover the two most important of the eight questions under discussion. It was felt that it was wise to proceed slowly, acting on the most essential points first, and giving the state associations time to modify their methods to conform to the recommendations of the conference. The question of uniform blanks and methods of keeping records, as well as that of a uniform transfer system, was deferred to a future conference. The advisability of issuing charters to constituent state associations was referred to the House of Delegates for consideration.

In view of the marked benefit which has resulted from bringing together the secretaries of the state associations at such a conference, the Committee recommends that the House of Delegates request the Board of Trustees to authorize a second conference of state secretaries as soon as such action may seem to them advisable, in order that the executive officers of the constituent state associations may have an opportunity for further conference on the strengthening and upbuilding of the organization.

Respectfully submitted,

DR. THOMAS MCDAVITT, Chairman,
DR. E. J. GOODWIN,
DR. E. W. WEIS,
DR. CLAUDE A. THOMPSON,
DR. JOSEPH H. MARTIN,
DR. F. R. GREEN, Secretary.

On motion, the report was referred to the Reference Committee on Legislation and Political Action.

Dr. Arthur Dean Bevan, Illinois, Chairman, presented the Report of the Council on Medical Education, as follows:

Report of the Council on Medical Education

To the Members of the House of Delegates of the American Medical Association:

For the ninth consecutive year the Council on Medical Education submits its annual report and is pleased to state that the progress reported in previous years is still being continued. The chief incidents in the work of the past year are as follows:

THE NINTH EDUCATIONAL CONFERENCE

The Ninth Annual Conference on Medical Education was held in Chicago, Monday, February 24. It was followed on Tuesday by the Conference of the Council on Health and Public Instruction and the Annual Meeting of the Association of American Medical Colleges was held. Thus at the same time and place each year the three chief agencies interested in medical education now hold their annual meetings. The annual conference started by the Council in 1905, therefore, has grown to be what may be termed an annual "congress" on medical education and licensure.

Probably the most effective work carried on by the Council has been through these annual conferences which have been regularly attended by delegates from medical colleges, state licensing boards, state medical societies, college associations, federations of state boards, university presidents and other educators. These conferences have constituted an open forum where the various problems in medical education have been taken up and given thorough and frank discussion. It was undoubtedly through these conferences that unanimity of effort by the various agencies working for an improved medical education has been secured, as a result of which such decided progress has been made.

In this connection a recent bulletin issued by the United States Bureau of Education,[1] after reproducing several pages from the Council's reports, in regard to medical education says: "No more marvelous chapter in the history of educational standards can be found than in a review of the work of these conferences."

HIGHER PRELIMINARY REQUIREMENTS ASSURED

During the last year action has been taken by various agencies by which the general adoption of higher preliminary

1. Bulletin, 1913, No. 4: "Present Standards of Higher Education in the United States."

requirements by medical colleges is made certain. In the Council's first report to the House of Delegates in 1905 an "ideal standard" was outlined which included as a minimum requirement of preliminary education in addition to a standard four-year high school education at least one year of collegiate work including courses in physics, chemistry, biology and a modern language. It was recommended that the work of this college year might be taken either in a college of liberal arts or in a preliminary year given by the medical college itself. This standard is no longer looked on as an "ideal" by medical colleges, but as the essential minimum. Previous to 1912 approximately fifty medical colleges and ten state licensing boards had voluntarily adopted that or a higher requirement. Last June this body aided materially in the movement by adopting a report which instructed the Council not to include in Class A, after Jan. 1, 1914, any medical college which did not require for admission at least this one additional year of preliminary work. On February 26 of the present year the Association of American Medical Colleges also adopted the same standard for all colleges in membership, to become effective after Jan. 1, 1914. Finally, on March 22, 1913, a joint committee made up of representatives of the College Association and the Council, with the advice of several experts in preliminary education, but especially that of Dr. Kendric C. Babcock, Specialist in Higher Education of the United States Bureau of Education, who was present at the meeting, adopted the following as the minimum requirement for the proposed year of college work in physics, chemistry, biology and a modern language:

ADMISSION TO THE PRELIMINARY COLLEGE YEAR

(a) For admission to the preliminary college year, students must have completed a four-year course of at least fourteen units in a standard accredited high school, or have its equivalent as demonstrated by an examination, and a transcript of the student's work should be secured direct from the principal of the high school by the college authorities and kept on file.

TABLE 1.—STANDARD HIGH SCHOOL COURSE

SUBJECTS.	UNITS.	REQUIRED.	ELECTIVE.
ENGLISH			
READING AND PRACTICE	2	2	...
Study and Practice	1	...	1
MATHEMATICS			
ALGEBRA TO QUADRATICS	1	1	...
Algebra (Quadratic Equations, Binomial Theorem and Progressions)	½	...	½
PLANE GEOMETRY	1	1	...
Solid Geometry	½	...	½
Trigonometry	½	...	½
LATIN			
GRAMMAR AND COMPOSITION	1	* 1	...
CAESAR	1	1	...
Cicero	1	...	1
Virgil	1	...	1
Cornelius Nepos	1	...	1
Greek			
Grammar and Composition	1	*	1
Xenophon	1	...	1
Homer	1	...	1
GERMAN (OR FRENCH)			
ELEMENTARY	2	2	...
Intermediate	1	...	1
French (or German)			
Elementary	2	**	2
Intermediate	1	...	2
Spanish			
Elementary	2	...	2
Scandinavian			
Elementary	2	...	2
HISTORY			
AMERICAN HISTORY AND CIVIL GOVERNMENT	1	1	...
Greek and Roman History	1	...	1
Medieval and Modern History	1	...	1
English History	1	...	1
Science †			
Botany and Zoology, each	1	...	1
or Biology	1	...	1
Chemistry	1	...	1
Physics	1	...	1
Physiography	½	...	½
Physiology	½	...	½
Agriculture	1	...	1
Drawing	1	...	1
Manual Training	1	...	1
Domestic Science	1	...	1
Music			
Appreciation or Harmony	1	...	1
Total	38½	9	29½

A *unit* is the credit value of at least 36 weeks' work of 4 or 5 recitation periods per week, each recitation period to be of not less than 40 minutes. In other words, a unit represents a year's study in any subject in a secondary school constituting approximately a quarter of a full year's work. A satisfactory year's work in any subject cannot be accomplished under ordinary circumstances in less than 120 sixty-minute hours, or their equivalent.

Required Branches: Of the 14 units of high-school work the subjects in capitals aggregating 9 units are required. Other work to the amount of at least 5 units may be made up from any of the other subjects of the above schedule.

* Two units of Greek may be substituted for the two required units of Latin.

** Two units of French may be substituted for the two required units of German.

† Credentials of each science course must include evidence of laboratory work.

(b) The required and elective subjects for which credits for admission to the preliminary college year may be accepted are shown in Table 1.

THE PRELIMINARY COLLEGE YEAR

At a joint meeting of the committees representing the Association of American Medical Colleges and the Council on Medical Education of the American Medical Association held March 22, 1913, and with the advice of Dr. Kendric C. Babcock, Specialist in Higher Education of the United States Bureau of Education, the following requirements were adopted for the preliminary college year:

(a) The preliminary college year shall extend through one college session of at least thirty-two weeks of actual instruction, including final examinations.

(b) In excellence of teaching and in content, the work of this preliminary college year shall be equal to the work done in the freshman year in standard colleges and universities.

(c) This preliminary college year shall include courses in physics, chemistry, biology and German or French, each course to embrace at least eight semester hours of didactic and laboratory work in each subject as shown in Table 2, provided that a student may satisfy the requirement of physics in presenting one unit of high-school physics and completing a half year of college physics which continues and does not duplicate the work done in the high school.

(d) In medical colleges planning to give the work of the preliminary year, provision should be made for full-time expert teachers in the various subjects. Sufficient equipment should be provided to enable the students to do the work intelligently—in amount such as will compare favorably with the equipment for these courses in standard colleges and universities.

(e) It should be remembered that the chief object of the work of the preliminary college year is to provide the student with a training that will enable him to enter more readily and intelligently on the study of the fundamental medical sciences in the medical school.

TABLE 2.—SCHEDULE OF WORK OF COLLEGE YEAR

Subject.	Lectures or Recitations Per Week	Laboratory Periods * Per Week	Total Hours Per Semester	Total Semester Hrs. Per Year.
Physics, 1	2	2	4	8
Chemistry, 1	2	2	4	8
Biology, 1	2 or 3	2 or 1	4	8
German or French, 2	4 or 3	.....	4 or 3	8 or 6
Totals	10	6 or 5	16 or 15	32 or 30

* Each laboratory period must extend over at least two hours.

OR, EXPRESSED IN CLASS HOURS:

Subject	Total Hours Lectures, or Recitations	Total Hours Laboratory Work	Total Minimum Hours Didactic and Laboratory
Physics, 1	64	128	192
Chemistry, 1	64	128	192
Biology, 1	64 or 96	128 or 64	192 or 160
German or French, 2	128 or 96	.....	128 or 96
Totals	320	384 or 320	704 or 640

COLLEGES AND STATES HAVING HIGHER ENTRANCE REQUIREMENTS

The thirty-two medical schools which are now requiring as a minimum for entrance two or more years of work in a college of liberal arts in addition to a four-year high-school education are as follows:

College	Began
Johns Hopkins University, Medical Department	1893
Harvard Medical School	1900
Western Reserve University Medical Department	1901
University of Chicago, Rush Medical College	1904
University of California, Medical Department	1905
University of Minnesota, College of Medicine and Surgery	1907
University of North Dakota, College of Medicine	1907
University of Wisconsin, College of Medicine	1907
Cornell University Medical College	1908
Wake Forest College, School of Medicine	1908
Leland Stanford Junior University, Department of Medicine	1909
Yale Medical School	1909
University of Kansas, School of Medicine	1909
University of Michigan, College of Medicine	1909
University of Nebraska, College of Medicine	1909
University of South Dakota, College of Medicine	1909
University of Colorado, School of Medicine	1910
Indiana University School of Medicine	1910
State University of Iowa, College of Medicine	1910
State University of Iowa, College of Homeopathic Medicine	1910
Drake University, College of Medicine	1910
University of Missouri, Department of Medicine	1910
Dartmouth Medical School	1910
Columbia University College of Physicians and Surgeons	1910
Syracuse University College of Medicine	1910
University of Pennsylvania, Medical Department	1910
University of Utah, Medical Department	1910
Northwestern University Medical School	1911
Georgetown University School of Medicine	1912
Washington University, Medical Department	1912
Ohio-Miami Medical College, Univ. of Cincinnati	1913
University of Pittsburgh, School of Medicine	1913

The following six medical schools have announced the adoption of the two-year collegiate requirement to take effect in the year given:

University of Georgia, Medical Department	1914
University of Illinois, College of Medicine	1914
University of Louisville Medical Department	1914
Fordham University School of Medicine	1914
University of Alabama, School of Medicine	1915
College of Medical Evangelists, Loma Linda, Cal	1915

The twenty-four following colleges require, in addition to a four-year high-school course, one year of college work in physics, chemistry, biology and a modern language, the requirement beginning in the year given:

College	In Force
Howard University, School of Medicine	1910
Tulane University, Medical Department	1910
St. Louis University, School of Medicine	1910
University of North Carolina, School of Medicine	1910
University of Oregon, Medical Department	1910
University of Texas, Medical Department	1910
University of Virginia, Department of Medicine	1910
Fordham University, School of Medicine	1911
West Virginia University, School of Medicine	1911
Medical School of Maine	1912
University of Michigan, Homeopathic College	1912
University and Bellevue Hospital Medical College	1912
Leonard Medical School	1912
University of Vermont, College of Medicine	1912
University of Illinois, College of Medicine	1913
Tufts College Medical School	1914
Cleveland-Pulte Medical College	1913
Hahnemann Medical College, Philadelphia	1913
Jefferson Medical College	1913
Medico-Chirurgical College of Philadelphia	1913
Temple University, Department of Medicine	1913
Woman's Medical College of Pennsylvania	1913
Baylor University, College of Medicine	1913
Marquette University, School of Medicine	1913

The seventeen following medical colleges have intimated that, beginning in 1914, they will require for admission, in addition to a standard four-year high-school education, the premedical college year devoted to courses in physics, chemistry, biology and a modern language:

College	In Force
College of Physicians and Surgeons, Los Angeles	1914
Oakland College of Medicine and Surgery	1914
George Washington University, Medical Department	1914
Bennett Medical College	1914
University of Louisville, Medical Department	1914
College of Physicians and Surgeons, Baltimore	1914
University of Maryland, School of Medicine	1914
Boston University, School of Medicine	1914
Detroit College of Medicine	1914
John A. Creighton Medical College	1914
Albany Medical College	1914
University of Buffalo, Medical Department	1914
Starling-Ohio Medical College	1914
State University of Oklahoma, School of Medicine	1914
Vanderbilt University Medical Department	1914
Medical College of Virginia	1914

After Jan. 1, 1914, therefore, there will be at least seventy-five medical colleges which will have put into effect entrance requirements of at least one year of college work including courses in physics, chemistry, biology and a modern language.

HIGHER PRELIMINARY REQUIREMENTS BY STATE BOARDS

There are now twelve state medical licensing boards which have adopted preliminary requirements in advance of a four-year high-school education. These are as follows:

State Examining Board of	No. of Years Required.	Affects Students Matriculating.	Affects all Applicants.
North Dakota	2	1907-08	1911
Iowa	2	1907-08	1911
Minnesota	2	1908-09	1912
Colorado	2	1910-11	1914
Connecticut	1	1910-11	1914
Kansas	1	1910-11	1914
Indiana	2	1910-11	1914
Utah	1	1910-11	1914
South Dakota	2	1911-12	1915
Vermont	1	1912-13	1917
Pennsylvania	1	1913-14	1918
Kentucky	2	1914-15	1918

THIRD CLASSIFICATION OF MEDICAL COLLEGES

Following the completion of the Council's third complete inspection of the medical colleges in the United States another classification was prepared. It was presented to this body in the Council's report last year and was ordered published. After a careful review of all the data the classification was published Jan. 18, 1913. This classification made reference to 118 medical colleges as shown in Table 3.

TABLE 3.—THIRD CLASSIFICATION OF MEDICAL COLLEGES

	Class A+	A	B	C	Total
Giving complete course	22	35	23	29	109
Giving two years only	2	6	1	..	9
Totals	24	41	24	29	118

In the three inspection tours which have now been completed, data along the same identical lines was collected from all colleges in order to secure information on which standards could be based. These standards are now fairly well fixed so that hereafter all inspections made can be of a more constructive nature, and the Council will be in a better position to point out to the officers of each college inspected such changes as may be made to the best advantage. Such statements heretofore have been sent only to such colleges as have requested them.

Since our last report the rating of the University of Georgia Medical Department, at Augusta, has been raised from Class B to Class A and the rating of the Medical College of the State of South Carolina has been raised from Class C to Class B because of very decided improvements. Both of these institutions have been granted full control of the attending staffs of the city hospitals and have carried on very successful campaigns for funds. The former raised $45,000 in subscriptions from the citizens of Augusta, and the city officials have agreed to give the medical school in perpetuity $10,000 per year. The latter has just secured legislation making it a state institution securing also a state appropriation of $10,000. In a more recent ten-day campaign $76,000 was obtained in subscriptions from the citizens of Charleston for the immediate development of the school.

MEDICAL EDUCATION IN THE SOUTH

A word should be said regarding medical education in the South. Time and again in the Council's annual conferences and elsewhere, the South has been referred to as a section of the country in which the medical schools needed to be given a special dispensation or needed special nursing in order to bring them to the same plane as the northern colleges, and in

former years there was perhaps some basis for such references. But, gentlemen, these references no longer apply to the South and the Southern delegates are themselves beginning to vigorously protest against them. The fact is that in no section of the country has the Council on Medical Education had a more hearty cooperation, than on the part of the medical college men of the South, and in no section of the country have improvements in medical education been greater than in those of the southern states. Tennessee, which formerly had twelve medical schools, now has only five and three of these, including one negro school, have undergone a remarkable development. In Alabama, Arkansas, Mississippi, Oklahoma and South Carolina there are now single medical schools supported and controlled by the state. We have just referred to the improvements of the University of Georgia and the Medical College of South Carolina. The same development has been going on in the medical schools in practically every Southern state.

Misgivings have been expressed regarding the adoption of higher entrance requirements in the South. The chief argument advanced against the requirement of higher preliminary standards in the South is that there is such a diversity of secondary schools, but this is really the strongest argument in favor of the higher requirement since in the preliminary college year the student's preliminary qualifications can be more positively ascertained and the student clearly needs the additional training. The colleges themselves have vigorously grappled with the problem, however, and have practically settled it. Already eight medical colleges in the South have established the higher requirements. These are the Universities of Texas, Tulane, Alabama, North Carolina and Virginia and also Baylor University, Wake Forest College and the Leonard Medical School. The University of Georgia has announced the adoption of the higher requirement to take effect in 1914 and the Medical College of Virginia and Vanderbilt University have intimated similar action. With all these colleges taking the definite stand for the increased requirement it will not be difficult for the Universities of Arkansas, Oklahoma, Mississippi and Tennessee and the Medical College of South Carolina, each of which has a clear field in its state, to adopt a similar requirement. It is quite evident, therefore, that the South needs no special dispensation on this score.

The South has not only demonstrated that it can hold its own in regard to medical education but in some respects it has furnished splendid examples which are aiding in the solution of educational problems elsewhere. The generosity with which the people of several Southern cities have come to the support of their local medical schools has shown what may be done in the cities of other sections of the country. The officials of southern cities also have been quick to see the importance of placing the care of the patients in the city hospitals and the sick poor of those cities in the charge of the faculties of good medical schools. Taken as a whole, progress in medical education in the south is very encouraging and is fully on a par with that throughout the country.

FURTHER DECREASE IN THE NUMBER OF MEDICAL SCHOOLS

As has been stated in a previous report, there were, in 1904, 166 medical schools in the United States, which was nearly one-half of the world's supply. Since that time, very largely since 1907 when the first classification of colleges was prepared, the decrease in the number of schools has been quite rapid. This has been brought about partly by the disappearance of the commercial medical schools which have gone out of existence, but more largely through the merger of several small schools in each of numerous localities leaving in each instance one larger and stronger school such as was done in Louisville, Kentucky, where five colleges merged into one. The same thing occurred in Indiana, Minnesota, Iowa, Tennessee, and elsewhere. The number of medical schools will be about 110 at the end of the present college session.

The figures showing the colleges which have been closed by merger and otherwise since 1907 are given in Table 4.

TABLE 4.—COLLEGES CLOSED SINCE 1907

Year	Class A		Class B		Class C		Totals		Total Closed
	Merged	Extinct	Mg.	Ext.	Mg.	Ext.	Mg.	Ext.	
1907.....	3	.....	3	1	.....	3	6	4	10
1908.....	2	.....	2	.....	1	4	5	4	9
1909.....	3	1	2	.....	.....	7	5	8	13
1910.....	1	.....	3	.....	3	6	7	6	13
1911.....	.....	.....	3	.....	1	3	4	3	7
1912.....	2	.....	.....	.....	.....	3	2	3	5
1913.....	3	.....	1	.....	4	.....	8	.....	8
	14	1	14	1	9	26	37	28	65

This decrease in the number of medical colleges has not been to the detriment of medical education but to its advantage. It has not removed or lessened the opportunities for students to study medicine, but has resulted in giving them better opportunities. It has resulted in reducing the abnormal oversupply to a smaller number but a better grade of medical schools.

COST OF TEACHING MEDICINE

Definite reports from sixty-five medical colleges show that the expense of teaching each student ranges from one and one-half to several times the amount that the student pays in fees. The average amount paid out per student by the sixty-five colleges was $410 while the average amount received in fees was $122. The excesses of cost over income per student in several schools were respectively: $2,774, $1,863, $897, $747, $730, $673, $518 and $500. The excess of expense over income from fees per student was over $200 in twenty-eight of the medical colleges which reported. It is safe to say that with the same equipment and at practically no additional expense these schools could easily accommodate two, three, or in some instances several times the number of students at present enrolled which would greatly reduce the disproportion of expense over income from fees. A further reduction in the vast oversupply of medical schools in this country will, therefore, be clearly in the interests of economy and will be of marked advantage to medical education.

While the cost of teaching medicine has been greatly increased the cost to the individual student has been only moderately increased. The cost to the student in some of the Class C medical schools is much greater than in some of the best university schools. Some of the state university medical schools charge fees as low as $50 to $80 per year, where, on the other hand, some Class C colleges demand that the student pay fees as high as $100 to $175 per year. Any plea for the continued existence of low grade colleges in the interest of the "poor boy" therefore, is apparently more for the boy who is poor in scholarship rather than for the boy who is poor in purse. There is no reason why any student should spend his time and money in a low grade college, the diplomas of which are now not recognized in many states when in the same time and for even less money he can get a thorough medical training in one of several of the best equipped colleges in the country.

The facts just given emphasize the sheer folly of starting new medical colleges unless those colleges are sufficiently well endowed or are otherwise adequately financed and equipped as thoroughly as the best of the colleges now existing.

FULL-TIME, EXPERT TEACHERS

Reliable information from all medical schools obtained during the third tour of inspection shows that in the 117 medical schools existing during 1912 there were altogether 876 full-time, salaried teachers and of this number 490 had professorial rank. This is an average, therefore, of eight full-time teachers to each school including between four and five which had professorial rank. Excluding about thirty colleges which had not a single full-time teacher, the average number for each of the remaining schools was ten of which six had professorial rank. Since a marked increase in the number of such teachers has been made since the third tour of inspection was made, the average number for each school is now undoubtedly higher.

STATE UNIVERSITY MEDICAL SCHOOLS

Twenty-seven states now have medical schools as integral parts of the state universities or—in one instance—under state control as separate institutions. These states and other interesting data regarding the medical schools are shown in Table 5.

TABLE 5.—STATE UNIVERSITY MEDICAL SCHOOLS

Medical School of State University of	Only School in State	Length of Med. Course in Years	Years of College Work for Admission	Medical School of State University of	Only School in State	Length of Med. Course in Years	Years of College Work for Admission
Alabama	1915	4	..[2]	North Carolina	.....	1915	1
Arkansas	Yes	4	.....	North Dakota	Yes	4	2[3]
California	.....	4	2	Oklahoma	Yes	4	.....
Colorado	Yes	4	2[3]	Oregon	Yes	4	1
Georgia	.....	4	..1	South Carolina	Yes	4	.....
Illinois	.....	4	..1	South Dakota	Yes	4	2[3]
Indiana	Yes	4	2[3]	Tennessee	.....	4	.....
Iowa*	Yes	4	2[3]	Texas	.....	4	1
Kansas	Yes	4	1915	Utah	Yes	1915	1915
Michigan*	.....	4	1915	Vermont	Yes	4	1
Minnesota	Yes	5	2[3]	Virginia	.....	4	1
Mississippi	Yes	1915	.....	West Virginia	Yes	1915	1
Missouri	.....	1915	.....	Wisconsin	.....	1915	2
Nebraska	.....	4	2				

*Have Homeopathic Departments.
1. To require 2 years in 1914.
2. To require 2 years in 1915.
3. Similar requirement by Licensing Board.

In fifteen states no other medical schools exist, medical education in the state being entirely in charge of the state university. This will be true in Alabama also in 1915, when an independent medical school now existing will have been converted into a postgraduate institution.

Of the twenty-seven state medical schools, twenty give the complete medical course and grant M.D. degrees while seven give only the first two years of the medical course. Minnesota now requires a five-year course, the fifth year to be spent by the student in a hospital as an intern, or in other recognized clinical work.

As may be noted in Table 3, thirteen of these state university medical schools are now requiring for admission two years of collegiate work. The medical schools of the Universities of Georgia and Illinois have adopted the two-year requirement to become effective in 1914. The medical school of the University of Alabama has announced the two-year requirement to take effect in 1915. As already shown the state schools are supported in this requirement by the state licensing boards in Colorado, Indiana, Iowa, Minnesota, North Dakota and South Dakota. Of the fourteen other state university medical schools eight are still requiring for admission a standard four-year high-school course and six are requiring in addition one year of collegiate work.

THE HOSPITAL INTERN YEAR

A beginning has been made toward a classification of hospitals according to their having sufficient patients, equipment, methods, and a willingness to furnish a satisfactory training for interns. Extensive reports have been secured from a large majority of the hospitals and from these a provisional classification will be prepared. Meanwhile some very interesting information has been secured bearing on the hospital internship.

To the 924 hospitals having 100 or more beds a letter was sent asking the number of interns at present in service. Of the 822 from which replies have been received, 279 report they have no interns and 543 report a total of 2,423 interns now in active service. Letters were sent also to about 1,500 hospitals having from twenty-five to 100 beds. Of the 1,363 which have replied, 1,054 report no interns while 309 report 583 interns in active service. Altogether, therefore, 852 hospitals report 3,006 interns in active service. Since there are only about 4,500 medical graduates each year there are still about 1,500 graduates for whom to provide internships, and there are about 1,400 hospitals having altogether approximately 135,000 beds which at present have no interns. There is every reason to believe that a special campaign carried on among these hospitals will result in providing an opportunity of an internship for every medical graduate.

From another standpoint some figures have been obtained that are interesting. Reports from over half of the medical schools indicate that of their graduates of 1912, about 70 per cent. obtained internships. Many of the colleges reported that all their graduates might have had internships had they so desired and that they could not supply the demand from hospitals for interns. In reply to the question why all graduates did not get internships the general reply was because the graduates concerned "did not want them," because they were going "directly into practice" or "they were married." Only six colleges reported that there were not enough hospital places offered, but it is quite apparent that if these colleges carry on a campaign among the hospitals in their states or sections that internships for all can be secured.

From these figures it will be seen that a definite requirement by state medical boards of a hospital internship as a prerequisite for license can be made possible within the next few years, without working a special hardship on any of the parties concerned. On the contrary, such a requirement would aid the hospitals seeking interns, it would greatly aid the recent graduates by furnishing them a practical hospital experience, and it would undoubtedly be of great value to the public since they would be supplied with better trained doctors.

STATE MEDICAL LICENSING BOARDS

As is now generally well understood, and as has been frequently stated in the Council's reports and publications, the only legal control over medical colleges and medical licensure in each state is that which may be given by the medical practice act to the state medical examining board. In the forty-nine states and four or five territories of this country, therefore, the national constitution provides for as many sources of control. The medical practice acts in these different states vary widely, from those which leave a wide open door to the ignorant, the incompetent, the quack and the impostor, to those which provide for the registration only of competent, well trained practitioners of medicine. Some state legislatures passed very excellent practice acts but later nullified these by enacting other measures providing short-cuts and lower educational standards for such as shrewdly called their medical practice by some other name. The greatest difficulty, therefore, which hinders the proper control of medical licensure in the United States is due to the multiplicity of legal bodies which have the licensure in control. Because of this multiplicity both of boards and of standards incompetents and impostors have but little difficulty of securing the privilege of carrying on their practices, no matter how iniquitous they may be, even in some of our most enlightened commonwealths. If a physician has his license in one state revoked for cause, he promptly moves into an adjoining state and secures a license to continue his crooked practice until caught again. With so many different boards and such a wide division of authority it is exceedingly difficult either to get proper legislation or to enforce it after it has been secured. The great problem in medical licensure, therefore, is: How to secure a close cooperation between the various state licensing boards by which unanimity of action, uniformity of standards and equally thorough methods and examinations may be obtained.

A SINGLE FEDERATION OF STATE MEDICAL BOARDS

Recognizing this need of cooperation there has recently been organized the Federation of State Medical Boards resulting from the effort to merge the two Confederations which have been in existence for several years. Under the new constitution this Federation gives promise of doing effective work and it certainly has a great opportunity. It is hoped that all state medical boards will unite with this organization, not only for the added protection it will furnish for the individual state but also for the great good that can and needs to be accomplished for the country as a whole.

NON-RECOGNITION OF LOW GRADE COLLEGES

Prior to the general inspection of all medical colleges by the Council on Medical Education, it was difficult or impossible for each state licensing board to know the character of the work done by even the colleges in its own state let alone what was being done by medical schools in distant parts of the country. Many boards were without authority either to make such investigations, or the funds necessary were not available. No accurate data on which standards could be based had been collected and therefore all medical colleges were "recognized" by practically all state boards unless perchance some college was caught redhanded in the selling of diplomas.

Since standards based on reliable data have been fixed, however, and since classifications of colleges have been published such state boards as have authority to discriminate between colleges have been exercising more or less their discretion in withdrawing recognition from medical colleges of low grade. Some boards, particularly during the past year, have adopted resolutions refusing to longer recognize the diplomas of any medical school rated in Class C. Other boards have prepared lists of their own, an examination of which, however, shows that few, if any, Class C colleges are included. In several states the Class C colleges located in those states are still retained on the recognized list, but not those located in other states. Some of these boards, however, are laboring with the local schools in an effort to secure improvements. From correspondence conducted during the year in the interests of prospective medical students who have the right to know whether the diplomas they receive are to be generally recognized or not, it is apparent that a large majority of colleges of the Class C type are now not fully recognized by the following state boards:

Alabama	Louisiana (Reg.)	Ohio
Arkansas (Reg.)	Maryland (Reg.)	Pennsylvania
Colorado	Michigan	Rhode Island
Connecticut (Reg.)	Minnesota	Texas
Delaware	New Hampshire	Vermont
Indiana	New Jersey	Virginia
Iowa	New York	West Virginia
Kentucky	North Dakota	Wisconsin

PROGRESS IN NINE YEARS

That great progress in medical education has been made in the last nine years shows more than anything else that improvements were greatly needed. Had this country, like other nations, had a national control over educational matters, there would probably have been no need for a Council on Medical Education. The serious conditions previously existing were doubtless due to the fact that the control of education was left to the fifty different states and territories, and that in many of the states no effective means of control had been provided. There was, therefore, great need of a national influence over matters pertaining to medical education and that influence was provided by the American Medical Association, the organization naturally best fitted to furnish it, even as the American Bar Association exerts a powerful influence in legal matters throughout the country.

The work of the American Medical Association through its Council on Medical Education is, of course, purely voluntary, and the results have come essentially from the formation of public opinion through publicity regarding existing conditions and needs as shown by standards and conditions elsewhere. After all, no force can bring improvements of such permanent nature as that of public opinion. In a republic such as the United States even laws are not very effective unless there is a strong public opinion in favor of them.

There are numerous other reasons, however, which in part account for the gratifying progress which has been made in medical education and which are worthy of mention:

(a) Many of the medical colleges had long realized the great need of improvement and quickly responded as soon as the Council's investigations had indicated what improvements were most needed.

(b) Through the annual conferences of the Council there has been a hearty cooperation between the several agencies working for an improved medical education.

(c) The Council in its work has had effective cooperation from medical colleges both individually and through the Association of American Medical Colleges. This is true also regarding state licensing boards both individually and through their national organization, now the Federation of State Medical Boards.

(d) Much credit for the progress made should go to the physicians of many of the medical college faculties who, with an enthusiasm most admirable, have responded to the standards held out by the Council, have readily set aside personal interests and ambitions, and have voted to merge their colleges with others, or even to close them outright in order that better conditions in medical colleges might prevail.

(e) The campaign carried on by the Council has been entirely in the open. By public conferences, the consensus of opinion regarding the various problems has been obtained. Its inspections have been generally welcomed, often have been invited and have always been made with the knowledge of the college officials. Its work has been constructive and not destructive and its standards are suggestions, not demands. No force has been exerted aside from that of publicity and even this has been used to set forth in general ideals and needs, and not to expose the defects of individual colleges. To the honor of the medical profession and of the medical colleges in particular, it can be said that the greatest proportion of the progress made has been by the voluntary action of the colleges themselves and not by compulsion.

(f) The general clearing house of information regarding medical education and licensure which has been established by the Council has rendered inestimable service. Through the information secured by the inspection of colleges and by the collection of statistics from medical schools, state licensing boards, foreign countries and other reliable sources much reliable information was made available which was formerly not to be obtained anywhere. Much of this information has been published in THE JOURNAL of the American Medical Association and in reports and pamphlets. Information thus obtained furnished a reliable basis on which reasonable standards could be constructed, and following these standards, marked improvements were made possible. This information has been of service not only to the colleges but also to state licensing boards, and as a result rapid progress has been made toward higher requirements in the various states, uniform with the higher requirements adopted by medical colleges.

(g) The most important factor back of the progress made in recent years, however, is the perfect sympathy in an improved medical education, held by the great majority of the rank and file of the medical profession of this country who constitute the American Medical Association. It was in response to this demand in 1846 that the American Medical Association was organized and again in 1904 when the permanent Council on Medical Education was created.

The work of the Council has not been without opposition. On the contrary one of the best evidences that progress has been made is in the opposition that has been stirred up. No reform movement can ever amount to much if it fails to stir up active opposition. There are always those whose practices cannot stand the light of publicity and who, therefore, oppose those who are turning on the light. It was not to be expected that those in control of certain colleges which were accepting students' fees and giving in return as little as possible, would quietly acquiesce in a movement which was seriously interfering with their profits. The motives of those back of the opposition, however, have been so apparent as to scarcely require comment in this report.

IMPROVEMENTS STILL NEEDED

The work in connection with medical colleges has now reached a stage where an American standard of medical education is well fixed and the chief efforts should be not so much toward higher standards as in securing internal improvements, better teachers, better hospital and dispensary facilities, more research and above all greater endowments.

The marked improvements made in medical colleges in recent years reveals in marked contrast the improvements needed in medical licensure. Many states need better medical

practice acts. In each state there should be a single board in control and a single educational standard by which all practitioners of the healing art should be measured regardless as to the particular methods of treatment to be followed. The very best men available should be selected as members of the licensing boards and if possible these boards should be taken out of politics. Examinations should be made more practical and thorough whereby a student would have to show evidences of actual training rather than of cramming in quizzes or from compends.

Meanwhile Canada has just established a Canadian Licensing Board which will provide an examination, the passing of which will secure a license recognized throughout Canada. It is worthy of consideration whether something similar cannot be done in this country. Some voluntary arrangement might be considered. The examinations given by the College Entrance Examination Board are now given general recognition by colleges and universities. Is it too Utopian to believe that a Medical Examining Board could be established in this country whose examinations might prove acceptable to a large number if not all of the state licensing boards? The methods by which such a board might be established are suggested in the address made by Mr. Frederick G. Hallet at the Council's conference two years ago, as well as the character of the examination which should be given. Possibly the new Federation of State Medical Boards may be able to take this up.

IN CONCLUSION

Although great progress has been made, there still remains much to be done. The work should be continued until this country shall rank second to no other in the excellence of its medical schools and in the quality of the physicians who are to have the responsibility of caring for the sick.

Respectfully submitted,

ARTHUR DEAN BEVAN, Chairman.
JAMES W. HOLLAND,
VICTOR C. VAUGHAN,
GEORGE DOCK,
WILLIAM D. HAGGARD,
N. P. COLWELL, Secretary.

At the conclusion of the report, Dr. Bevan said: In spite of the weaknesses I have pointed out under these five statements, here and there in the United States there is a splendid development in the whole situation of medical education, and the members of the House of Delegates can look forward confidently within the next few years to such a condition of affairs as this: A reasonable number of medical schools on a scientific basis, with good medical courses, with compulsory intern years as an American standard.

The report was then referred to the Reference Committee on Medical Education.

Dr. Arthur T. McCormack, Kentucky, moved that the amendments to the Constitution be referred to the Reference Committee on Amendments to the Constitution and By-Laws.

Motion seconded and carried.

The proposed amendments are as follows:

Amendments to Constitution

At the 1911 session, the Reference Committee on Amendments to the Constitution and By-Laws recommended the following amendments to the Constitution:

Amend Article 11 of the Constitution by striking out in the first, second and third lines the words "by an equal assessment of not more than ten dollars annually on each of the members."

Amend Article 3 of the Constitution by striking out the entire paragraph and inserting after the title of the article the following:

All members in good standing of the component societies or their constituent branches shall be members of the American Medical Association.

Any member may become a fellow of the American Medical Association by making application on a prescribed form and fulfilling such conditions as may be required by the provisions of the By-Laws.

At the 1912 session these proposed amendments were referred to the Judicial Council with instruction to report thereon to the House of Delegates in 1913.

At the 1912 session, the Reference Committee on Amendments to the Constitution and By-Laws recommended the following amendments to the Constitution:

Amend Article 10, Section 2, of the Constitution by adding the following:

"and the President, Secretary and Editor of THE JOURNAL shall be members of the Board of Trustees without the right to vote."

Dr. C. Wythe Cook, District of Columbia, stated that at the meeting of the House of Delegates, held in Atlantic City last year, he offered a resolution asking that the Medical Association of the District of Columbia be changed to the Medical Society of the District of Columbia, and that this resolution was referred to the Reference Committee on Miscellaneous Business; but in looking over the minutes, he had found that no report was made with regard to it. He would like to have it appear in the record that this change in the name of the society was authorized.

Dr. Arthur T. McCormack, Kentucky, moved that the resolution referred to by Dr. Cook be considered as reintroduced and be referred to the Reference Committee on Miscellaneous Business.

Motion seconded and carried.

The President called for the Report of the Committee on Red Cross Medical Work, Dr. George M. Kober, District of Columbia, Chairman.

The Secretary moved that the House do now adjourn in memory of Dr. Daugherty, and that the Report of the Committee on Red Cross Medical Work be made the first order of business at the afternoon session.

Motion seconded and carried.

Accordingly, the House then adjourned until 2 p. m.

(To be continued)

Society Proceedings

COMING MEETINGS

Maine Medical Association, Portland, July 2-3.
Washington State Medical Association, Everett, July 14.

AMERICAN ASSOCIATION FOR CANCER RESEARCH

Sixth Annual Meeting, held in Washington, D. C., May 5, 1913

Can the Number of Cures of Cancer Be Increased by Early Excision?

DR. J. C. BLOODGOOD, Baltimore: The statistics for the last five years show that the relative number of benign tumors of the breast is increasing. I can show that if a lump in the breast is removed within a few weeks, certain types of malignant breast tumors will disappear. Pain is more common in the benign than in the malignant tumors. Therefore one should not wait until pain is present. I think that in the next five years, owing to the education which we are instituting along this line, we shall notice tremendous changes in the results of operations for malignant disease.

DISCUSSION

DR. WILLIAM B. COLEY, New York: Dr. Bloodgood's figures are a striking demonstration of what may be hoped for from improved resources in surgery. They also show that we must educate the medical profession. The reason we have not received cancer cases earlier is not so much that the patients do not go to the doctor as that the doctor has felt that the tumor was possibly not malignant, and that it would be better to wait for later symptoms, particularly pain, to develop. Pain is quite unimportant as a diagnostic point. Most lesions cause little or no pain until they are too far

advanced to be cured. I believe that when cases of melanotic tumors prove fatal after surgery, this is because the surgeons have waited until there was ulceration.

DR. ROBERT B. GREENOUGH, Boston: I approve of restricting the efforts of this society to the instruction of the medical profession regarding the early cases of cancer; but I do not feel that the whole responsibility rests with them, particularly for tumor of the breast. Individual patients are more at fault than is the physician; this is partly due to the absence of pain, partly to the despair that the patient feels of securing a radical cure, and partly, also, to the desire to avoid mutilation. If we attempt to carry the non-mutilating operation too far, we shall run a serious risk of having the disease followed by carcinoma.

DR. J. C. BLOODGOOD, Baltimore: I have endeavored to demonstrate the great increase in the number of cures from the radical excision of the beginning lesion. The surgeon also needs education regarding the proper treatment of the beginning lesion; an incomplete cutting operation in the very early stage of cancer is worse than delay. In the past women have come to the surgeon months or years after the lump was first noticed. If women were educated to have the tumor explored the day after it is seen or felt, their chances of cure would be 80 per cent. or more. To excise a piece for diagnosis without burning the area in the skin is a dangerous procedure. There is really no necessity for taking out a piece for diagnosis. The nodule is so small that it can all be removed readily. This excision or the use of the Paquelin cautery is sufficient for a cure. The result depends not only on making the diagnosis early, but also on the surgeon's knowing when to remove the growth.

Education of the People as to What Can Be Done in Early Cases of Cancer.

DR. THOMAS S. CULLEN, Baltimore: It is absolutely necessary that people be enlightened as to how to diagnose cancer early, and as to what can be done for them in the early stages. If the women are educated to this, they will get after the men. Information on this point should be and is being published in magazines read exclusively by women. They are being told what constitutes cancer symptoms, and this will mean that a large percentage of the cases will be cured.

The Incidence and Inheritability of Cancer in Mice

DR. MAUD SLYE, Chicago: During my work on heredity I accumulated a stock of 5,000 mice of known ancestry and pedigree. At the end of three years tumors began to appear spontaneously among the mice then in stock. With this stock of mice in which tumors had appeared spontaneously, I began my work on cancer. I have now 9,000 mice. All the mice were allowed to die a natural death and the necropsy was made as soon as possible afterward. I have eliminated contact and contagion in cancer by dividing my mice into four sections, which were never interchanged. We are compelled to use the mice in breeding before cancer has developed, so that it is hard to tell whether those which have been selected for breeding would have had cancer or not. If you wait till the cancer develops you run the risk of having no offspring or of having the mother too feeble to bring them up, or of having the offspring too feeble to produce other generations. I am using methods of breeding before and afterward. I have done 4,500 necropsies and have found 271 cases of unquestioned tumor.

DISCUSSION

DR. LEO LOEB, St. Louis: In our work we have noticed that some strains of mice have 100 per cent. incidence of cancer, and others considerably less, so that it is likely that heredity plays a great rôle.

DR. HARVEY R. GAYLORD, Buffalo: We have had a great deal of trouble with vermin in our work, and I wonder to what extent Dr. Slye was able to control this in hers. Her charts showed that the most constant factor in producing the disease is the affection of the mother. I wonder if her work showed differences of susceptibility in the offspring when only the other was affected and when both the father and mother had the disease.

DR. H. GIDEON WELLS, Chicago: I will assume responsibility for the histologic diagnoses in Dr. Slye's cases. When there has been any question as to malignancy, the doubt has been given in favor of the non-malignancy of the tumor. When it is diagnosed as sarcoma or carcinoma, the criteria have been applied in such a way that, if the specimen had been from a human being, we should have recommended a radical operation.

DR. WILLIAM B. COLEY, New York: There is a strong hereditary influence in the causation of cancer. A man had a round-cell sarcoma of the parotid, and his two daughters had sarcoma of the breast. This tendency to different types I have observed in a number of different instances.

DR. RICHARD WEIL, New York: If this result presents an analogy with the mendelian law, it would appear that it has a marked dominant characteristic—the tendency, I mean, to degeneration of the tissues. Aside from the ordinary routes of infection, there is the possibility of infection through the placenta. The fact that the females develop tumors in the breast, while the males develop them in the lung, would seem to rule out infection and show that it is a tendency toward cancerous degeneration of the tissues.

DR. LEO LOEB, St. Louis: In my work the age of the offspring does not vary; it has the tumor at approximately the same age as the mother.

DR. JAMES EWING, New York: If all the strains showed this heredity, then it is stronger in mice than in man. Nevertheless, I should feel a great hesitation in applying these observations in mice to cancer in man.

DR. MAUD SLYE, Chicago: I should hesitate to apply the rules of Mendel's work on dominance and recessiveness to a subject so difficult to investigate from the point of view of inheritability as cancer. If you throw gray mice, house-mice and albino mice, of pure-bred strains, into a cage together, in reasonably even numbers, you will find inside of three weeks that the house-mouse is no longer the dominant. In three years you will have almost entirely albino mice, and no house-mice. The house-mice can produce both the albino mice and the house-mice; but the albinos can produce nothing but the albinos, if they breed with house-mice. I have made no test concerning immunity. The problem of ruling out the carrying of infection by means of vermin, I found positively appalling. The mice are subject to vermin no matter what you do; but all are equally at their mercy—vermin do not pick out the cancer strains particularly. After all the work that has been done the great dominance of cancer has been found to be among the females alone, whereas the lung tumors divide quite evenly between the males and familes. The mice that I have carried through twenty-three generations are the Japanese dancing mice, which in my work have shown no tendency to cancer.

Passive Immunization against Rat Sarcoma; Immune Substances in the Blood of Rats Recovered from Tumor

DR. RICHARD WEIL, New York: Rats which recover from their tumors are immune to subsequent implantation in more than 90 per cent. of the cases; but our experiments along the line of injecting immune plasma into normal rats, to protect them against subsequent implantation and growth of tumor, do not justify the view that the blood of recovered rats carries the factor of immunity. The conclusion is drawn that it is impossible by means of passive sensitization of guinea-pigs to demonstrate the presence of immune substances in the blood of rats recovered from implanted sarcoma.

DISCUSSION

DR. S. P. BEEBE, New York: Dr. Crile and myself have made the same kind of experiments as Dr. Weil, except that a considerably larger quantity of blood was transfused directly into the vein of the tumor-bearing animal, from the animal that had recovered. This was followed by recovery in the tumor-bearing animal. In dogs we used considerably larger quantities of material in the transfusion. We added a

great deal more blood proportionately than the rat weighed—15 or 16 gm. received when 100 c.c. were injected. It is possible that this made some difference.

DR. HARVEY R. GAYLORD, Buffalo: After years of trying to find under what conditions we obtain original results, we finally came to the conclusion that there was some factor which we could not repeat. We did not separate the plasma, but used the entire blood. I tried the experiment with dogs, using plasma and serum, and obtained no results. In one instance I obtained results from injecting fluid blood into a tumor of the vagina.

DR. PEYTON ROUS, New York: I think that too much emphasis cannot be laid on the question of balance. We may be able to tip the scales in some cases of non-malignant growths, when with malignant tumors, it would be impossible.

DR. J. W. VAUGHAN, Detroit: When the tumor is progressing with rapidity, the serum will be of no value. The reason that we do not secure results in the beginning is that it is a transitory and not a permanent sensitization with which we are dealing.

DR. RICHARD WEIL, New York: Balance is a very indefinite feature, so far as I can judge, and one which should be avoided. The whole blood does not carry protection. It immunizes just as embryo tissue immunizes—actively.

Factors in the Production and Growth of Tumor Metastases

DR. E. E. TYZZER, Boston: If massage is performed early, the secondary nodules develop much earlier than is ever observed in the natural development of the tumor. The pre-metastatic period probably depends on other factors at least as important as active resistants to the tumor's growth. The period may be greatly shortened artificially by the massage of the primary tumors. The influence of active resistance in preventing the growth of tumor emboli is largely hypothetic, and does not account for the premetastatic period; for the presence of it has not been shown early in this period. The production of metastasis depends on the biologic character of the tumor, the duration of its growth, the size of the primary mass, possible peculiar conditions furnished by the tissue's host, and, under artificial conditions, forcible manipulation.

DISCUSSION

DR. HARVEY R. GAYLORD, Buffalo: We found that depletion in the blood-supply of the tumor seemed to hasten the growth, and we had the impression that anesthesia did the same.

DR. PEYTON ROUS, New York: My attention was called to a case of carcinoma in an animal which had been massaged, and I also tried some experiments by massage on adenocarcinoma rats, with the result that the animals all died. In ours, the massage did not cause the tumor material to go into the blood-stream any more than ordinarily.

Cancer Statistics

DR. W. F. WILCOX, Ithaca, N. Y.: Statistics have become much confused between cancers and tumors. Cancer is primarily a disease of elderly persons, and the proportion of elderly persons who have this disease is steadily rising. The death-rate from cancer among males, while lower, is shown to be steadily increasing. The increase in cancer among insured persons is less rapid than that of the general population. In view of all the statistical evidence I am inclined to hold that the increase of the mortality from cancer is apparent rather than real. I believe further that those who doubt this conclusion and think that most of the increase is real may interpret the evidence as showing that the real increase is slackening, and that, perhaps, in certain limited areas it is already approaching its maximum.

DISCUSSION

DR. JAMES EWING, New York: The real question that interests pathologists is not so much the incidence as the relation to the particular forms of cancer. Therefore it seems to me that the statistics will have to be confined to particular types of the disease, in order to get away from the tendency to class all cancer as one kind.

DR. W. F. WILCOX, Ithaca, N. Y.: Regarding the point just raised, rather strenuous efforts are being made by the registration officials to secure a specification of the part of the body primarily affected by cancer, when a certificate of death from cancer is turned in. In 1900 about 18 per cent. of the death certificates read simply "cancer" and nothing else.

The Effect of Fulguration and Non-Carbohydrate Diet on Transplantable Rat Sarcoma

DR. S. P. BEEBE and MISS ELEANOR VAN ALSTINE, New York: The animals were divided into two classes, those in which we started the dieting immediately on the planting of the tumor and those in which the diet was begun at a period prior to the transplantation of the tumor. The results in the first class showed that there is no difference in the behavior of the tumor on the ordinary diet and on the non-carbohydrate diet, when the diet is begun immediately. The results of the second type were important. Twenty-six rats were given this special non-carbohydrate diet, and twenty-six were given a control diet, which was the ordinary diet of the laboratory. The nitrogen remained the same in each case. In the non-carbohydrate diet we replaced lard by lactose. There were 100 per cent. of "takes" of the tumor in transplantation. In the second and third weeks the control animals showed two and a half times the tumor over the animals on the special diet. Between the third and fourth week so many of the animals died that it was not advisable to go on with the investigation.

DISCUSSION

DR. FREDRICK PARKER GAY, Berkeley, Cal.: I should like to ask what the relation of the broth was in the second class of diet.

MISS VAN ALSTINE: The broth was about the same up to the time of the first week, when the tumors began to drift apart; and the animals on the lactose diet, in which the tumor grew very fast, began to lose weight.

DR. S. P. BEEBE, New York: The rats, twenty-five or thirty, were planted with the same tumor on the same day. They had been fed with the special diet, and kept under the same conditions; yet if they did not have the carbohydrate food, they did not take the tumor—or if they did, the tumors did not grow so large as in the animals which did have a carbohydrate diet. If you plant the tumor and start the diet on the same day, it has no opportunity to manifest itself, the tumor having killed most of the rats. This short period would, when estimated in proportion to the lifetime of a human being, mean years on this diet, in order to prepare him to resist the tumor.

The Purins and Purin Metabolism of Some Tumors in Domestic Animals

DR. ESMOND R. LONG, Chicago: The purins of tumors in domestic animals are generally the same as those of the normal tissue. The purin enzymes are also generally the same in tumors as in the normal tissue from which the tumors are derived. The absence of xanthin oxidase in a malignant tumor, containing otherwise the same purin enzymes as the tissue from which it comes, is evidence, on chemical grounds, confirming the histologic evidence of the embryonic character of tumor tissue.

DISCUSSION

DR. RICHARD WEIL, New York: The tumors of sheep have long been a subject of dispute. It has been shown that these tumors are not derived from renal or adrenal rests, but are tumors of liver-cell origin.

The Influence of Ultraviolet Light on a Tumor Caused by a Filterable Agent

DR. PEYTON ROUS, New York: Three or four years ago we isolated from the tumor of a chicken a filterable agent which, when used under aseptic precautions produced a tumor in other animals. We tried the Roentgen ray and the ultraviolet rays on these tumors. The results with the Roentgen ray were not satisfactory; but with the ultraviolet rays we

were able to secure better results. Ordinarily the fresh tumor tissues when transplanted into susceptible fowls caused a decided growth within a week. This was with malignant growths. When we used less malignant growths the tissues died at once and we did not obtain the round-cell reaction. We think that there is a definite and quite distinct resistance to this process directed against the new growth, which prevents the tumor from being infectious. We found some fowls susceptible to the agent and not to the transplanted cells; others susceptible to the transplanted cells, but not to the agent, and still others susceptible to both.

DISCUSSION

DR. JAMES EWING, New York: I should like to ask if drying destroys the life of all the cells? I found that active drying of living epithelial cells did not destroy their viability.

DR. PEYTON ROUS, New York: I had not been aware of the fact that epithelial tissue would survive drying. From my own findings, and those of others, I judged that they would not.

The Action of Intravenous Injections of Various Substances in Animal and Human Cancer

DR. LEO LOEB, St. Louis: Of forty-six tumor-mice injected with colloidal copper, thirty-five did not grow and eleven grew. The colloidal condition in which the metal is introduced is of great influence on the results which are obtained. Various caseins inhibited the growth of tumors during the period of injection in the large majority of cases. All cases which are rapidly growing cannot be markedly influenced by the treatment. Possibly a slight retardation of growth can be obtained for some time at least. We may conclude from our observations that mouse carcinoma and human cancer can be affected in a similar manner, and that comparing the dose given per kilogram of animal and man, the copper is not less effective in the case of man than in the case of mice. I am not inclined to think that these various substances act directly on the cancer cells after having been taken into the cell bodies. How far this mode of treatment in combination with others, such as radium and Roentgen rays, may become of practical value, we cannot predict at present.

DISCUSSION

DR. THOMAS ORDWAY, Boston: We selected four cases: a slowly growing carcinoma of the tongue, a case of rodent ulcer, a case of carcinoma of the tonsil and a case of carcinoma of the neck. In only one of these cases did there seem to be even a temporary improvement. While all the patients are living, yet there has been no definite improvement manifested. Cancers are subject to great fluctuations, and it is very difficult to draw conclusions as to the results of any form of treatment.

DR. H. GIDEON WELLS, Chicago: The unique position occupied by casein in these experiments is interesting. Goat and cow casein will counteract one another. In the great incidence of carcinoma in the mammary gland one may see a connection between that and the effect of casein on these carcinomas.

DR. RICHARD WEIL, New York: We gave copper in amounts from 100 to 700 c.c. In some cases we noted chill and rise of temperature, but in general the copper was well borne. We had a necropsy in one case, and the tumor from operation in another. This gave us two tumors to examine. No trace of copper could be found in either tumor on analysis. In the liver, however, marked amounts were found.

Nematodes in Hyperplastic Thyroids of Dogs

DR. HARVEY R. GAYLORD, Buffalo: We found little tubercles in some of the slides made of the thyroids from dogs which had acquired hyperplasia of the thyroid from drinking water from an infected pond. Three puppies which had drunk the pond water directly, without boiling, had tubercles in the capsule of the thyroid, and in some cases in the structure of the thyroid, in the center of which was a small nematode. A control dog that also showed a slight amount of hyperplasia, which might have been acquired before the experiments began, also showed this tubercle containing a nematode.

DISCUSSION

DR. S. P. BEEBE, New York: We have had some ideas in regard to nematodes having a possible relation to the action taking place in the thyroid.

DR. PEYTON ROUS, New York: I have found nematodes in normal mice, in sections made of the skin for other purposes, and in chickens they are common in the young.

DR. ERWIN F. SMITH, Washington, D. C.: It is well known that there are many free nematodes and many parasitic ones on plants.

DR. JAMES EWING, New York: If the nematodes are found frequently without relation to tumors, the histologic evidence is strong that they are connected with histologic reactions.

DR. H. R. GAYLORD: So far as I can tell, there is no relation between the nematodes and the hyperplasia.

Carcinoma of the Skin

DR. J. A. FORDYCE, New York: I have some photographs of Paget's disease showing identical changes and proving that this disease is not limited to the nipple. You can find it in other parts of the skin. I have seen it in the buttocks, thighs and scrotum. The changes in the epidermis were identical in all the cases; but in the nipple skin there was proliferation of the epidermis.

DISCUSSION

DR. JAMES EWING, New York: Does Paget's disease in regions not connected with the breast throw any light on the main question at issue, namely, the relation of the skin lesion to primary carcinoma of the breast duct?

DR. J. A. FORDYCE, New York: Paget's disease is a primary disease of the epidermis. The primary changes are seen in the epidermis before there is much involvement of the underlying tissue.

AMERICAN SURGICAL ASSOCIATION

Annual Meeting held in Washington, D. C., May 6-8, 1913

The President, DR. CHARLES A. POWERS, Denver, in the Chair

Fibromatosis of Stomach and Its Relationship to Ulcer and to Cancer

DRS. ALEXIS THOMSON and JAMES M. GRAHAM, Edinburgh, Scotland: There exists an innocent form of gastric fibromatosis (cirrhosis or linitis). We have observed nine cases in which, neither in the stomach nor in the lymph-nodes, was there a trace of cancer to be found. In the mucosa appearances resembling cancer are met with in these cases, and might be mistaken for it, but we are confident they do not represent cancer, for the suspicious appearances are confined to the mucosa. We have operated in cases of fibromatosis, and, having done no more than an exploration, or at most a palliative gastro-enterostomy, the tumor has disappeared and the patient his survived ten or more years. There is an essential difference between fibromatosis and the callousing scar tissue of a gastric ulcer. Scar tissue resembles the scar tissue that forms in other organs and tissues in its structure in that it is limited in extent and is proportionate in amount to the lesion with which it is associated. Fibromatosis not only differs from scar tissue in its structure and arrangement, but, above all, is characterized by its capacity for spreading in the wall of the stomach, it may be, far beyond the area of its original formation. It may, for example, spread round the whole circumference of the stomach and into the adjacent transverse colon. The scar tissue which attends on ulcer takes the place of the coats of the stomach that have been destroyed by the ulcer; fibromatosis is an addition to the tissues of the stomach, and by its selection of the submucosa, it renders the different coats of the organ more easily recognized than in the normal state.

We do not know what is the cause of gastric fibromatosis; but from its invariable association with a punched-out ulcer or with chronic superficial ulceration of the mucosa, it is suggested that through the breach of surface there enters an

irritant or toxin which excites the diffuse formation of fibrous tissue. The clinical evidence supports the inference that if the breach in the mucosa heals, the fibromatosis may disappear. We are unable to support the view that fibromatosis is of syphilitic or tuberculous origin. Fibromatosis does not exclude the presence of cancer. The ulcer or ulceration which is responsible for the occurrence of fibromatosis is also liable to become the starting-point of cancer. We have had five cases in which there is the combination of ulcer, fibromatosis and cancer. Because of the impossibility of excluding cancer at the period of operation, the treatment must necessarily be on the same lines as cancer. The subsequent detailed examination of the specimen, if it exclude cancer, will permit of a favorable prognosis.

DISCUSSION

DR. JOSEPH C. BLOODGOOD, Baltimore: I have seen at operation four cases of this disease. The thing which impressed me most was the fact that in other lesions there is a similar production of connective tissue out of proportion to any known etiologic factor, such as osteitis fibrosa, acne and desmoid tumors. In the four cases which I have observed I was surprised by the absence of adhesions between the peritoneum covering the stomach and the surrounding viscera, and also by the fact that in spite of the enormous increase in connective tissue throughout the wall of the stomach the peritoneal surface remained free.

DR. JOSEPH A. BLAKE, New York: The condition of fibromatosis might be due to a very slight infection giving rise to a rather diffuse round-celled infiltration with marked reaction on the part of the tissue to the irritation. The same condition is apt to obtain in places in which there are broad tissue-planes, as in the neck and abdominal wall.

DR. T. A. MCGRAW, Detroit: I wish to cite a case of pyloric obstruction caused by a tumor the size of a hen's egg, the condition being relieved by a gastro-enterostomy with the elastic ligature, the patient living in perfect health for three years. At the end of that time he again developed intestinal obstruction. Operation revealed no adhesions around the stomach, no trace of the original tumor at the pylorus and no palpable lymph-nodes, but a cancer of the large intestine immediately under the stomach though not in any way connected with this viscus. The patient succumbed to the operation, and examination of the sections showed typical scirrhus carcinoma, with cheesy degeneration of the lymph-nodes.

DR. J. M. T. FINNEY, Baltimore: I have operated in cases of fibromatosis doing simply an exploration or a palliative gastro-enterostomy, with the recovery of the patient and the disappearance of the tumor. I have seen a case of spontaneous cure without operation.

DR. RUDOLPH MATAS, New Orleans: Simple diffuse fibromatosis is a very rare condition. In the pathology of elephantiasis, which is a fibromatosis of the subdermal tissues, there are a great many analogies to this diffuse progressive form of fibromatosis encountered in the stomach.

DR. ARPAD G. GERSTER, New York: A case of excision of a pyloric tumor was diagnosed as carcinoma. In the removal I found that I had cut through a substance very much resembling malignant tissue, and therefore feared that I had not made a wide enough excision; but on microscopic examination, although the body of the tumor was proved carcinoma, the surrounding material was a simple fibromatosis.

DR. WILLIAM B. COLEY, New York: In my opinion the clinical signs with regard to these tumors of the pylorus are of more value than the microscopic report if the latter prove negative for malignancy. In a case in point, in which Dr. Mayo operated, the clinical diagnosis was carcinoma, the pathologist failed to find any trace of this condition, and yet the patient died two years later with general carcinomatosis.

Diagnosis and Treatment of Fractures Involving the Knee-Joint (Including Epiphyseal Separation)

DR. JOHN BAPST BLAKE, Boston: Since May 24, 1864, 871 closed and 11 open fractures have been treated at the Boston City Hospital, about 2 per cent of all fractures. The etiology is usually indirect violence, and this is probably an explanation of the scarcity of open patella fractures. Obliteration of normal joint dimple is a constant symptom. Of the last 418 cases, since 1895, 245 have been subjected to operation, and 173 treated expectantly: at present practically all cases due to indirect violence are subjected to operation: usually a capsule suture with absorbable material, without drilling the bone. There were 7 cases of refracture, patients operated on being apparently more liable to refracture. There were 8 deaths in 418 cases, most of them due to pneumonia or delirium tremens or both. Open fractures are cleaned with particular care and prolonged irrigation, and closed in a manner similar to the others. There were 20 cases of separation of lower epiphysis of the femur, and but 2 of the upper epiphysis of the tibia since 1864: also 2 cases of Osgood-Schlatter disease. Fractures of the femur or tibia into the joint are often unsuspected even by a good practitioner. They should be considered in every case of trauma near the knee. They seldom require open operation. The former almost invariably have backward displacement of the lower fragment, and will be operated on more frequently in the future; both need longer fixation than shaft fractures. On the whole, the involvement of the largest joint surface of the body, except for the danger of sepsis, makes less difference than might be expected if early diagnosis, Roentgen-ray control and sufficient immobilization be practiced.

DISCUSSION

DR. HARRY M. SHERMAN, San Francisco: I do not agree with those who hurry the removal of the splint in fractures of joints. Immobilization kept up for time sufficient to get solid union is imperative. Immobilization is not the cause of ankylosis, but trauma of the joint itself does result in this condition because of adhesions. Passive motion which produces pain produces trauma and should be guarded against.

DR. CHARLES L. SCUDDER, Boston: One should be guided as to the time of relieving immobilization and beginning passive motion by the condition of the fragments, whether or not they have been reduced and the articular surface restored to the normal. A longer time is required when there is a large amount of callus, as in incomplete reductions. Immobilization does not cause ankylosis but lack of reduction does.

DR. GEORGE E. ARMSTRONG, Montreal: The functional result in fractures is largely dependent on the anatomic result. There is but a slight tendency on the part of fractures to displacement after being once properly replaced, and while in many cases the use of a foreign body is objectionable, the method of notching the ends of the bones even in spiral or oblique fractures will hold them in accurate position. In two cases I made a dowel from a small portion of the crest of the tibia, inserting this into the medullary canal of the upper and lower fragments of the broken bone. This piece of living bone has done much to stimulate and increase repair.

DR. WILLY MEYER, New York: Fifty years ago William Busch insisted that stiffness would not result if the elbow were placed in three positions: first, in the obtuse position in which the patient usually holds the arm when he presents himself for treatment, for ten days; then with a whiff of anesthetic, conducting the arm slowly to the sharp right-angle position, keeping it there for ten days; finally, with another whiff of anesthetic very slowly bringing it into the straight position with a splint on either side encased in a flannel bandage. I have had most satisfactory results with this treatment.

DR. HENRY B. DELATOUR, Brooklyn: In the last nine years I have had seventy-eight fractures of the patella, with operation in all, with a mortality of one; this was due to delirium tremens. Two were cases of simultaneous fracture of both patellae. The method of operation employed was suture with chromicized catgut, particular attention being paid to the tear in the ligament. No drainage was used. A plaster splint was applied from the toes to the middle of the thigh for ten days, then the splint was divided to leave a posterior splint, the patella was moved laterally at this dressing when the sutures were removed, and the posterior splint was retained for three weeks; after this time it was removed at night,

but kept on in the daytime, thus allowing the patient some passive motion in bed without any strain directly on the patella. No movements of the joint were made by the surgeon until after the fourth week. In only two of the seventy-eight cases did I encounter trouble in securing motion; these two patients gave a previous history of rheumatism, and eventually good motion was obtained. There was subsequent fracture of the opposite patella in four cases, and refracture of the same patella in two cases.

DR. JAMES E. MOORE, Minneapolis: By keeping the injured member quiet long enough to allow Nature to bring about a natural healing in the bone, and by letting the patient exercise it himself afterward, the greatest number of good results will be obtained. It is more important to treat most carefully joints in adults than in children with regard to the after treatment. Great difficulty is sometimes encountered about the knee-joint after fracture of the neck of the femur in old persons and in such cases I employ passive motion to the knee-joint.

DR. CHARLES N. DOWD, New York: The results in bone injuries in children are much better than in adults, and these results in children are much the same whether treated by the most improved or by the old-fashioned methods. Interference in children is not so necessary as in similar injuries occurring in adults.

Congenital Dislocation of the Hip—A Rational Method of Treatment

DR. HARRY M. SHERMAN, San Francisco: All the components of the joint, femora, head and neck, acetabulum and capsular ligament, are variants in greater or less degree from the normal, and of these the capsular ligament, elongated and narrowed, is the chief obstacle to easy or complete entrance of the femoral head into the acetabulum, while the twisted femoral shaft, which gives the neck and head a forward direction instead of one inward and but a little forward, is the chief cause of reluxation and the assumption of the position called the anterior transposition. Therefore I practice reposition through an incision. This, placed between the tensor vaginae femoris and the long head of the rectus femoris, cuts only connective tissue in exposing and entering the capsular ligament. Through this incision the narrow part of the capsule is reached and freely cut, and then, in the great majority of cases, in children of proper age, the head can easily be lifted into the acetabulum. Later, to prevent a reluxation, an osteotomy of the femoral shaft is done below the trochanters, and the lower fragment is rotated outward while the upper fragment is held in such a position that the head and neck are properly correlated to the acetabulum as well as to the outward rotated shaft. The method of holding the upper fragment, consisting of head, neck aand trochanters, is by driving into the shaft between the trochanters, a suitable steel nail the end of which projects and can be incorporated in the plaster-of-Paris dressing. The osteotomy is accorded a place of considerable value, for the cases of satisfactory joints, that is, joints that are practically normal functionally, even though they vary from the conventional norm anatomically, was but 41.3 per cent. before the osteotomy became a part of the technic, while 70.3 per cent. of satisfactory joints are secured since the osteotomy is practiced in all cases that need it.

DISCUSSION

DR. WILLIAM S. HALSTED, Baltimore: A patient operated on at the age of 5 years had a very small head and a twist of the neck of the femur which made extreme rotation necessary to hold the joint in position, the slightest deviation from this permitting popping out of the head. This child was kept in this position with extreme rotation, the splint being changed every week, for about six months, and now, about twenty years later, there is a perfect development of the hip.

Five Cases of Suture of the Heart

DR. FRANCIS T. STEWART, Philadelphia: Case 1.—Symptoms of acute anemia and hemopneumothorax. Stab wound of left ventricle, ¾ inch long, continuous silk suture. Ligation of descending branch of left coronary artery near its origin. Drainage of pericardial and pleural cavities. Pyopericardium and pyothorax. Recovery. Death five years later from pulmonary tuberculosis. At necropsy the wall of the left ventricle was the seat of interstitial myocarditis, and in one place near the apex greatly thinned. Case 2.—Symptoms of acute anemia and hemopneumothorax. Stab wound of left ventricle, ½ inch long. Continuous silk suture. Suture of pericardium, drainage of pleural cavity. Pyothorax. Recovery. Patient still well four years and three months after injury. Case 3.—Symptoms of compression of heart. Pleura not injured. Stab wound of right auricle, ¼ inch long. Continuous catgut suture. Closure of pericardium. Pleura not opened during operation. Recovery without pyopericardium or pyothorax. Patient well after two years. Case 4. Symptoms of acute anemia and hemopneumothorax. Stab wound of left ventricle, 1 inch long. Continuous catgut suture, closure of pericardium, drainage of pleural cavity. Death in forty-one hours. Necropsy, pyothorax, purulent pericarditis, acute infective myocarditis, acute vegetative endocarditis. Case 5.—Symptoms of acute anemia and hemopneumothorax. Stab wound of right ventricle, 1 1/5 inches long. Continuous catgut suture. Closure of pericardium, drainage of pleural cavity. Death in one hour. Autopsy, wound passed into right ventricle, then through the septum into the left ventricle. Both ventricles were hypertrophied and the mitral valves were badly diseased.

Surgery of the Pulmonary Artery

DR. WILLY MEYER, New York: The main trunk of the pulmonary artery is easily accessible within the pericardium after incision of the latter and pulling the pulmonary artery plus ascending aorta forward by means of an elastic tube, which is conducted through the transverse sinus of the pericardium. The elastic tube compressing both vessels is held by an assistant, the pulmonary artery is incised, and the emboli are removed with forceps. The vessel wound is then closed by sutures. Trendelenburg and his assistants have done the operation twelve times. No permanent recovery has been seen so far, but the results are encouraging. One patient of Krueger lived four days after the operation and then died of pleuropneumonia. The two arteries cannot be compressed longer than forty-five seconds. Laewen and Sievers of the Leipsic clinic have found that the compression of the two venae cavae is better borne, evidently on account of avoiding the distention of the right heart. In doing this, six or eight minutes are at the operator's disposal. The ligation of branches of the pulmonary arteries for bronchiectasis was recommended by Sauerbruch and Bruns two years ago. Three patients operated on by me are greatly improved so far. The interruption of the physiologic function of the lobe of the lung poduces shrinkage, connective tissue formation, and adhesion between pulmonary and costal pleurae. Multiple resection of ribs done at a second stage produces collapse of the lung later on. The main trunk of the left and right pulmonary arteries can be ligated without harm in the animal. The left branch is nicely accessible within the pericardium by reflecting a part of the latter or right outside of the pericardium, according to anatomic conditions. Ligation of the right branch is more difficult. The best procedure is the exposure and ligation of the right pulmonary artery within the pericardium between the ascending aorta and the superior vena cava. Another approach is to the division of the right pulmonary artery through an incision outside of the vena cava superior. The experimental work on the latter approach has not yet been completed. If it should be shown that pulmonary shrinkage and collapse therapy of the lung do not cure or at least greatly improve the trouble, pneumectomy will become the operation of choice, since we have learned to close the bronchus air-tight.

Arteriovenous Anastomosis for Threatened Gangrene of the Foot

DR. LEONARD FREEMAN, Denver: From the theoretical considerations and from the results so far obtained in arterio-

venous anastomosis for threatened gangrene of the extremities, the following conclusions may be drawn: Although the procedure is justifiable in a few well-selected cases, it seldom has been followed by success, and even then its real value may be questioned owing to the fact that spontaneous recoveries occasionally occur—with as much frequency, perhaps, as do operative successes. Owing to the uncertainty of the value of the operation, one should at least endeavor to do as little harm as possible. Hence, from this point of view, it is better to do a side-to-side anastomosis, or to implant the distal end of the vein into the side of the artery, rather than to unite the two vessels end to end, thus preserving to the limb its remaining arterial circulation, however little that may be. According to our present knowledge, operations on the upper extremities should be considered with reservation, owing to the comparative frequency of spontaneous recoveries.

Discussion on Suture of the Heart, Surgery of Pulmonary Artery and Arteriovenous Anastomosis

DR. F. B. LUND, Boston: I wish to call attention to the value of the Meltzer-Auer intratracheal insufflation apparatus in surgery of the cardiovascular system or when the pleura is to be opened widely and when there are no adhesions of the lung to the chest wall.

DR. HOWARD LILIENTHAL, New York: In arteriovenous anastomoses the technic is of prime importance, and it is most important to use the very finest needles than can be handled, No. 13 or No. 14, together with 6 O silk well coated with petrolatum. The end-to-end suture is the best as it affords the minimum chance of thrombosis.

MR. ALEXIS THOMSON, Edinburgh, Scotland: I had a case in which an arteriovenous anastomosis was done first on one side, and at a subsequent time on the opposite side for threatened gangrene, the anastomoses being of the femoral artery and vein at the apices of Scarpa's triangle. This patient still later developed a hemiplegia and at her own request the common carotid was anastomosed with the internal jugular vein.

Periosteal Round-Cell Sarcoma of Femur with Extensive Multiple Metastasis: Cured with the Mixed Toxins; Epithelial Tumor Developing at Site of Roentgen-Ray Dermatitis Ten and One-Half Years Later; Amputation; Metastasis; Death in Four Months

DR. WILLIAM B. COLEY, New York: I had a case of periosteal round-cell sarcoma of the femur, involving two-thirds of the shaft, with extensive multiple metastases, apparently cured by the mixed toxins of erysipelas and *Bacillus prodigiosus*, in which ten years later a malignant tumor—sarcoma and epithelioma—developed in the thigh at the site of an old Roentgen-ray dermatitis. The case is unique in being the only one on record of periosteal round-cell sarcoma of the femur with metastases cured by any method of treatment. In February, 1902, the involvement of the femur was so great (two-thirds of the shaft) that hip-joint amputation was strongly advised, but refused. An exploratory operation was done and the diagnosis of round-cell sarcoma confirmed by microscopic examination. The Roentgen rays were used for a number of months to the point of causing a severe dermatitis. While the Roentgen-ray treatment was being given, a large metastatic tumor developed in the left pectoral region, and a larger tumor, the size of a child's head in the iliolumbar region. The growth in the pectoral region was partially removed and a number of Roentgen-ray treatments applied to the locality. No rays were used for the large iliolumbar tumor. The mixed toxins were begun Feb. 12, 1913, and continued until July 25, eighty-six injections in all, ranging in doses from 1 to 20 minims. At the end of two months the hard tumor began fluctuating. An incision was made posteriorly through the ilium, and upward of a pint of broken-down necrotic tumor material was evacuated. The patient made a complete recovery, except for the dermatitis of the thigh, which persisted during the following ten years.

In May, 1912, a small epithelioma developed at the site of the slight dermatitis in the pectoral region. In October the dermatitis of the thigh, caused by the Roentgen ray, underwent extensive malignant degeneration; the tumor grew with great rapidity. An exploratory operation was done Nov. 27, 1912, and the tissue removed was examined by William H. Welch, James Ewing and William C. Clark. The specimen examined by Welch proved to be round-cell sarcoma; the edge of the specimen showed a structure which resembled a true epitheliomatous growth superimposed on the sarcoma. Ewing's specimen showed spindle-cell sarcoma, Clark's showed epithelioma of the basal-cell type. The patient grew worse rapidly, and on Jan. 2, 1913, finally consented to amputation, which had been advised as soon as the diagnosis was made. At this time he was extremely emaciated; the blood-count showed 35 per cent. hemoglobin, but despite his weakened condition he stood the amputation well. Death ensued two weeks later, apparently from general metastases. A careful study of the entire specimen showed two distinct types of tumor side by side, one a typical epithelioma, the other a sarcoma. Section of the bone showed in the medullary cavity of the femur, a short distance above the condyle, a circumscribed tumor measuring 5 by 3 cm. Microscopic examination showed this tumor to be a squamous-cell epithelioma, interpreted by both Welch and Ewing as a metastasis from the lesion in the skin or muscle. Inasmuch as the former periosteal tumor did not involve the muscle and the later tumor did not involve the bone or periosteum, I believed that the later tumor development was entirely independent of the primary growth of ten years previously. This was also the opinion of Welch and Ewing, who thought that the sarcomatous tumor might possibly be regarded as a relighting of the old bone sarcoma of ten years ago, some of the cells of the former tumor having remained latent during this long period.

DISCUSSION

DR. A. J. OCHSNER, Chicago: I had a case of inoperable round-cell sarcoma of the ilium which was opened, the diagnosis made and confirmed, and the patient treated by the Coley toxins with apparent recovery. Two years later a new tumor appeared in the same region and increased rapidly in size. Toxins again were administered, but without effect, the patient succumbing to the condition. Necropsy revealed the fact that the secondary tumor was not a sarcoma but a cyst, at the bottom of which was a carcinomatous degeneration.

DR. JOSEPH C. BLOODGOOD, Baltimore: In reference to the supposition that the secondary growth might have resulted from the Roentgen-ray treatment, I had a patient seven year after a primary and two secondary growths operated on and treated by the Roentgen ray. I am of the opinion, however, that the result obtained by Dr. Coley of disappearance of the tumor and an interval of ten years before reappearance, justifies in inoperable cases the trial of the mixed toxins.

Hygroma Cysticum Colli

DR. CHARLES N. DOWD, New York: Large cystic tumors in children's necks have been described for years under the name of "hygroma." The term should be restricted to cysts lined with endothelium and having a marked power of growth. Such cystic growths are uncommon. A careful search of the literature has so far revealed records of only ninety-one cases located distinctly in the neck, and thirty-five cases located principally in the axilla, but in part, at least, extending there from the neck. In the great majority of these cases there is no definite report of the cyst lining; hence this detail of their structure is unknown. I have seen three cases of undoubted hygroma, and a fourth case which was believed to be a hygroma but in which inflammation had destroyed the finer structure of the cyst walls. Two of these cysts showed a very strong form of growth—one extended into the mediastinum and another under the clavicle and onto the anterior chest wall beneath the pectoralis major muscle which it pushed forward. One recurred rapidly. Protargol staining of the fresh cyst walls in two of the cases showed delicate endo-

thelial linings. Microscopic section of the third showed what was believed to be endothelial lining. The lining of the fourth case was obliterated by inflammation. All cases were treated by excision. One patient died in the hospital, another died of intercurrent disease a few weeks after leaving the hospital. I believe that these cysts are due to embryonic sequestrations of lymphatic tissue which at a later time shows the power of very vigorous but irregular growth.

DISCUSSION

Dr. John B. Murphy, Chicago: If only a portion of the tumor is removed there is a rapid return with enormous increase in size and secretion, and these tumors frequently undergo malignant degeneration.

Dr. Joseph C. Bloodgood, Baltimore: I have encountered a number of cysts in the neck lined with endothelium, having no apparent connection with the blood-system, and I have also seen them in the axilla and groin, occurring without trauma. Three of these cases, which in all number less than twenty, have been malignant, evidenced by the presence of blood and papillomatous growths of the cyst wall, these papillomas making excision extremely difficult if not impossible. I advise early removal of hygromas to avoid malignancy, which seems to be a late development.

(To be continued)

Miscellany

Hyperthyroidism.—Bing protests against the use of the name exophthalmic goiter, saying that the goiter and the exophthalmos are the least essentially characteristic symptoms. The cardiovascular anomalies and the tremor are the obligatory diagnostic criteria and not the protruding eyes or the goiter. The syndrome may be typical even without the latter. The tachycardia is permanent, the heart beat is regular as a rule. The tremor is rapid, eight or ten times a second, and increasing in intensity during movements and subsiding in complete repose. Other secondary symptoms are transient weakness of muscles, generally those of the legs, amounting at times to paroxysmal paraparesis, so that the patient sinks down as he is standing or walking. This muscular weakness fluctuates and it may occasionally be experienced elsewhere than in the legs, in the back of the neck or external ocular muscles, while the accommodation musculature and the iris are spared. Some of his patients were unable to draw a deep breath; the French call this the "signe de Louise Bryson." Other secondary symptoms are menstrual disturbances, especially dysmenorrhea and less frequently amenorrhea. Diarrhea is also characteristic; it comes on suddenly and may persist for days or weeks, rebellious to all treatment, and then stop suddenly as it began. The passages are very thin; there is seldom pain with them and they may run up to ten or more a day. General or localized hyperidrosis is also common, continuous or paroxysmal. This dampness of the skin is probably responsible for its changed conductibility. If in health the conductibility corresponded to 4,000 ohms, in the thyroid patient it drops to 1,000 ohms. Neuralgic disturbances and signs of excessive excitability of the neuromuscular apparatus are more common. A slight tap on the muscles starts them to twitching. Trophic disturbances are likewise common in exophthalmic goiter, especially dryness and brittleness of the hair and a lack of luster; this was noted in 60 per cent. of Bing's patients. Pigmentation, edema, softening of the bones and atrophy of the breasts are also common. In his study, published in the *Schweizerische Rundschau für Medizin*, 1913, xiii, 409, he reviews the anomalies in the metabolism, the lymphocytosis, and then comments on the extreme restlessness of the patients, their constant activity and the lack of perseverance in their efforts. It is hard for them to stay long in one place, they are subject to frequent change of moods, and they take offense readily. In two-thirds of all his cases, symptoms on the part of the heart were the first to attract attention, before a goiter or tremor was noticed. The course is generally subchronic or intermittent chronic, but Trousseau and Müller have reported a rapidly fatal course with death in two months in a few cases, and Mackenzie a death the third day after the first symptoms. A hereditary and familial connection with psychoses or psychoneuroses can be traced in most cases, and preceding or coexisting mental disease is not very rare. The hyperthyroid syndrome sometimes develops as a complication of organic disease of the nervous system or following a fright or emotional stress. In treatment Bing advises a few weeks in bed to reduce the restlessness and tachycardia, avoidance of meat and much seasoning, and also of tea, coffee, alcohol and tobacco, restricting the diet to eggs, milk and vegetables. If milk increases the diarrhea, he orders it in the form of a jelly (10 gm. of pulverized gum arabic are stirred into a little cold milk and then 0.25 liter of whole milk is poured over it and the whole boiled, with or without a little peeled and ground sweet and bitter almonds). Resting in a steamer chair out-of-doors, especially at a moderate altitude, from 3,600 to 5,400 feet, is useful, but sports and dancing must be forbidden. Of drugs, sodium phosphate in daily doses of 6, 8 or 10 gm., dissolved in water, milk or soup, seems to have almost a specific action, Bing says, on most of the hyperthyroid symptoms. If it induces diarrhea, he gives calcium glycerophosphate instead (0.25 gm. four times a day). Valerian preparations do little good unless they are given continuously and in large doses, almost to actual saturation of the system with valerian. Belladonna and atropin have occasionally had a favorable action, as also arsenic. Organotherapy has not obtained a permanent place yet in treatment of hyperthyroidism, although theoretically it is well founded; in its very nature, however, its action is but temporary. He says that operative treatment also is liable to have but transient success, requiring further resections. The mortality also is about 5 per cent. on account of the unstable condition of the heart and vasomotors. Bircher advises against operations in exophthalmic goiter, but Bing advocates them when the social or financial condition renders impossible proper medical supervision over months and years.

Fatalities after Salvarsan.—The April number of the *Berliner Klinik* is devoted to a survey of the fatalities following administration of salvarsan. The list includes a personal case reported by the author, J. Schestopal of Odessa. His patient was a girl of 11 with parenchymatous keratitis from inherited syphilis. After a vigorous course of mercurial treatment vision improved and the general health was good, but the Wassermann reaction was still strongly positive. Fifty-four inunctions had been made in sixty-nine days, but the persisting Wassermann reaction showed that the causal germs were resistant to mercury and he changed to neosalvarsan, giving an intravenous injection of 0.4 gm. neosalvarsan (corresponding to a dose of 0.266 of salvarsan). Fifteen minutes later the child developed slight and transient nausea, chilliness and headache, but she felt so well by evening that she went to a moving-picture show. Three days later a second injection was given of 0.75 gm. neosalvarsan (equal to 0.5 gm. salvarsan) likewise in the median cephalic vein. The bowels failed to move for three days; nausea and headache developed, followed by a sudden onset of symptoms of an acute affection of the brain, and the child died within twenty-four hours. The necropsy findings were negative, nothing pathologic being found except a slight tendency to fatty degeneration of the liver. The features of the case also exclude anaphylaxis, and they did not correspond to the picture of arsenic poisoning. Schestopal groups the case with the fatalities reported by Kannengiesser, Rissom, Westphal, Almquist and others in which the internal organs were comparatively sound and there were no hemorrhages in the brain cortex, and the severe brain and spinal-cord symptoms can be explained most plausibly by Ravaut's "cerebrospinal reaction," evidenced by the appearance of albumin and lymphocytosis in the cerebrospinal fluid. Ravaut found this cerebral reaction in the secondary stage of syphilis; but in Schestopal's case the disease was of the hereditary type. (Ravaut's article was summarized in The Journal April 13, 1912, p. 1156.)